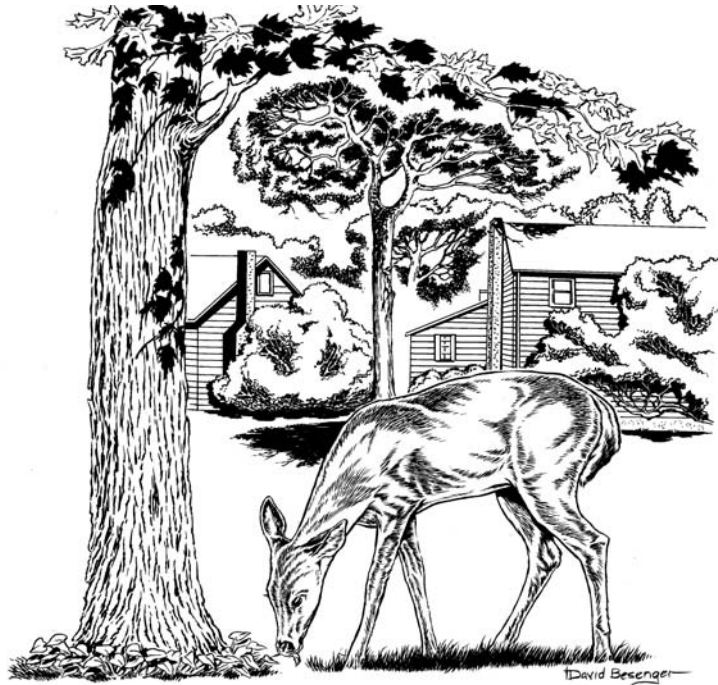


Deer Management in the Greater Springfield Metropolitan Area FINAL REPORT



September 20, 2007

**The official report and recommendations on a study conducted by the
Greater Springfield Urban Deer Action Committee (UDAC)**

Executive Summary

“When deer populations are regulated by cars, the costs are shared by everyone through their insurance premiums and these costs are significant. Any other method of deer control is safer, more humane, and more cost effective.”
Paul D. Curtis 1992.

Managing White-tailed deer populations in the urban setting has become a challenge not only for the Greater Springfield Metro Area, but for communities’ nationwide. Since the management of deer populations in the urban and suburban setting can involve many different players that cross municipality and county lines, the Greater Springfield Metro Urban Deer Action Committee (UDAC) was formed in April of 2006. Over the course of the past year, the committee has met monthly and done research into local deer populations, population management, management alternatives, human deer conflicts, deer vehicle collisions (DVC’s), obtained public opinion (both by survey and by public forums), and investigated how other communities in Missouri and nationwide have begun to address the same problem now faced by the Greater Springfield Metro Area.

The objective of the Urban Deer Action Committee was to identify the nature and extent of problems caused by high deer densities in the Greater Springfield Metro Area, and to recommend any appropriate solutions. Deer management is a regional issue that necessitates a regional approach. To that end, municipalities and governmental agencies in four counties were invited to be on the Urban Deer Action Committee.

Locally, both human and deer populations have grown. The Greater Springfield Metro Area has grown over 250% since 1950 (Appendixes 5, 6, and 7). Expanding deer herds and increased suburban development have led to a higher incidence of deer-vehicle collisions, landscape damage due to deer browse, and degraded habitat quality than is found in rural areas of the state. Deer-vehicle collisions are greater for areas of high deer densities, with Greene and Taney Counties seeing a very high number each year. The Missouri Department of Conservation (MDC) Springfield Conservation Nature Center and the Southwest (MDC) Regional offices receive at least 300 complaints of deer damage each year. Many residents, business, and the Missouri Veterans Cemetery (MVC) report having hundreds of dollars in damage annually to landscape vegetation and gardens due to deer browse. Studies have shown that deer densities above about 20 deer/mi², can have a detrimental effect on the overall ecosystem by over browsing woody and herbaceous vegetation. Deer over browsing negatively affects other wildlife species also, especially songbirds and insects.

Municipalities like Springfield and surrounding towns must take the initiative to address local deer issues. Only local citizens can decide what number of deer is acceptable and then take action to reach the agreed-upon goal. Often, as is the case in Springfield, local ordinances prohibit techniques that have been proven effective for managing deer. Historically, the use of firearms and archery equipment was prohibited within city limits; however more and more cities are utilizing controlled hunting to manage their ever increasing deer herds. Ironically, the feeding of deer within the corporate city limits of Springfield is allowed which only worsens problems. Municipalities in the Greater

Springfield Metro Area should consider developing no feeding ordinances for wildlife to help with the problems of over abundant wildlife.

Archery hunting has proven to be safe and effective in managing deer numbers in urban and suburban areas. In one Missouri situation, nine carefully selected archers safely removed 35 deer from a single property in only four days. In another instance, the Certified Bow Hunters of Saint Louis County, 6 active hunters from this group harvested 94 deer in the 2006-2007 hunting season on only 30 properties. This group has harvested 294 deer in five hunting seasons from two Saint Louis Counties greatly helping ease Human deer conflicts in these areas.

In the case of archery hunting, requirements can include proof of hunter education certification, proof of proficiency with archery equipment, minimum acreage requirements, written permission from landowners, mandatory check-in and check-out, hunting only from tree stands, and buffer zones around residences and roadways. Often, simply granting hunting access to one's private property, either rural or suburban, is enough to solve or prevent a problem. Municipalities in the Greater Springfield Metro Area should consider developing ordinances that allow archery hunting within the corporate city limits of their communities. Also, County governments should explore including hunting provisions in new subdivision, green space, and parks as part of the planning and permitting process.

It is our hope that the City of Springfield and other municipalities in the Greater Springfield Metro Area would carefully review this report and determine, after public input, the specific steps that they should take to implement a deer management plan of their own. This report includes management recommendations and the results of public opinion surveys that should aid in a decision making process.

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The Greater Springfield Urban Deer Action Committee Members:

- ✓ Springfield City Utilities: Steve Nelson (Chairman of Committee)
- ✓ City of Republic: Keith Roberts
- ✓ City of Willard: Randy Brown
- ✓ City of Springfield: J. D. Slaughter
- ✓ City of Nixa: Steve Faseler
- ✓ City of Ozark: Larry Martin
- ✓ City of Battlefield: Dick Snelson
- ✓ City of Strafford: Jarrett Burk
- ✓ City of Rogersville: Leon Roderick
- ✓ Greene County Commission: David Coonrod
- ✓ Wilson's Creek National Battlefield: David Peitz
- ✓ Ozark City Parks: Mike Grider
- ✓ Springfield-Greene County Parks: Thomas Moore
- ✓ Missouri Department of Conservation: Adam Arnold (Technical Advisor)
- ✓ Missouri Department of Conservation: Brad Jump (Technical Advisor)

The Value of Deer

Prior to European settlement, biologists and ecologists estimated that deer densities averaged around 8-11 deer per mi.² in eastern hardwood forests. The pre-settlement deer population in Missouri has been estimated at around 800,000 deer or around 11-12 deer per mi.². By the early 1900's deer populations had been exploited to the point that only a few hundred remained in the remote areas of the Ozarks. It has not been that long since deer sightings were infrequent in Southwest Missouri. With the reintroduction and subsequent implementation of modern deer management practices, deer populations have grown to over one million statewide. Much of the South Springfield area has had estimated deer densities greater than 39 deer per mi.² since the late 1990's

Deer are now abundant, easily identified and popular to view. This has led many Missouri citizens to have strong feelings about White-tailed deer and their management. A recent survey of both rural and urban Missouri residents revealed that White-tailed deer is the number one wildlife species that people like to see outside of a zoo.

Deer hunting contributes millions of dollars to the state economy annually. Hunters spend around three million hunter-days in the field annually hunting deer.

The Cost of Too Many Deer

Having abundant deer is not without cost. According to The Insurance Institute for Highway Safety estimates, more than 1.5 million deer-vehicle collisions occur nationwide each year, resulting in 150 deaths, tens of thousands of injuries and more than \$1 billion in vehicle damage. The average claim for collision damage is \$2,600, and the average claim involving bodily injury is more than \$11,000. In 2005 there were 23,694 deer-vehicle accidents reported in Illinois and 11 people died. In 2004, five people died in deer-vehicle collisions in Missouri. In Missouri, the number of Deer Vehicle Collisions has remained relatively constant over the past decade even as the number of roads, traffic volume, and speed limits increased. However the Glaciated plains and the Osage Plains have shown slight increases since 2003.

Having too many deer leads to associated herd health and human health related issues. Deer often become more susceptible to diseases like Epizootic Hemorrhagic Disease (EHD) as happened around the Wilson Creek National Battlefield in 2006, where a deer population decline of around 55% was noted. Deer are known carriers of the ticks that cause diseases like Lyme disease, Rocky Mountain Spotted Fever, and Ehrlichiosis, and Southern Tick Associated Rash Illness, which can be transmitted to humans.

South Springfield Deer Populations

Deer population surveys have been conducted in the Greater Springfield Metro Area since 1999. Koch (1999) determined the population in south Springfield to be 39 deer per mi.². In 2002 the MDC estimated the deer population to be 41 deer per mi.². And again in 2006 the MDC estimated 36 deer per mi.² for the original 1999 survey area. (Appendix 1)

The UDAC

In April of 2006, the Missouri Department of Conservation staff helped bring together representatives from a number of Southwest Missouri municipalities and agencies in and around the greater Springfield metropolitan area to form the Urban Deer Action Committee (UDAC). The purpose of the committee is to examine the nature and extent of problems caused by suburban deer and recommend potential solutions. The following municipalities and governmental agencies are participating in the Urban Deer Action Committee (with a single member from each): City of Springfield, City of Republic, City of Willard, City of Nixa, City of Ozark, City of Battlefield, City of Rogersville, City of Strafford, Missouri Department of Conservation, National Park Service Wilson's Creek National Battlefield, Greene County Health Department, Springfield-Greene County Parks, Greene County Commission, Webster County Commission, Christian County Commission, Springfield City Utilities, and Ozark City Parks. The Missouri Department of Conservation is not a voting member of the committee, serving solely as a wildlife consultant to the group. The UDAC is comprised of governmental agencies/municipalities that either control large amounts of land (in the metro area), or are responsible for the construction of the ordinances. It was felt that this was the best solution, because if a member from a special interest group were invited, we would have had to invite all special interest groups that pertained to this topic. The result would have been a much larger UDAC with widely opposing views that might have clashed, taking much longer to begin correcting the problems at hand.

In recent decades, the white-tailed deer population in the Greater Springfield Metro Area has grown. Population studies using a variety of techniques have shown deer populations between 36 and 168 deer per square mile in some areas of the Greater Springfield Metro Area (Appendix 1). Studies suggest that deer negatively affect other wildlife and plant species when their population increases beyond 20 deer per mile² of habitat. Area municipalities have several options, with varying costs, regarding deer management. Trapping and relocation is not an option because of the potential to spread disease to other deer populations in the state and the high mortality resulting from capture stress. Fertility control is also not an option because the technology is not available or cost effective for free-ranging deer populations. The available deer management options for the Greater Springfield Metropolitan Area include:

- **CONTROLLED HUNTING:** allowing controlled hunting with permission of landowners. In most cases, bow hunting from a 10-15 foot high tree stand would be used and deer would be shot at 20 yards or less. Some or all of the meat could be donated to the Share the Harvest program.
- **SHARP-SHOOTING:** hiring trained marksmen to shoot deer from specifically placed stands to thin the deer herd. All meat would be donated to food pantries through the Share the Harvest program.
- **TRAPPING AND EUTHANASIA:** trapping deer in baited traps with the permission of landowners, and killing the deer in a way that allows for donation of meat to food pantries.
- **DAMAGE CONTROL:** taking no action in regards to the current deer population, and encouraging residents to use damage control techniques including fencing, repellants, and scare tactics.

What Other Cities Across Missouri Have Done:

St. Louis Area:

Several Municipalities utilized a Deer Task Force to make recommendations. Putting these recommendations into action, the suburban St. Louis cities of Clarkson Valley and Chesterfield have both adopted revised ordinances that allow for archery hunting. In addition, regulations prohibiting “back yard feeding” of deer have been put in place.

Kansas City Area:

Several Kansas City municipalities have allowed archery hunting within their city limits for many years. The Jackson County Parks system has conducted managed archery and muzzleloader hunts on park land for more than a decade. In 2003 Kansas City changed its ordinance to allow limited managed archery hunts within the city.

Central Missouri Area:

Since 2003 Columbia has utilized a pilot program of archery hunting on certain city – owned tracts of land as well as multiple use parks. Boonville has used a combination of archery hunting on private land, and sharpshooters on both public and private land to control deer numbers. In 2005 the city of Fulton passed an ordinance to allow archery hunting on selected private properties within the city limits in October.

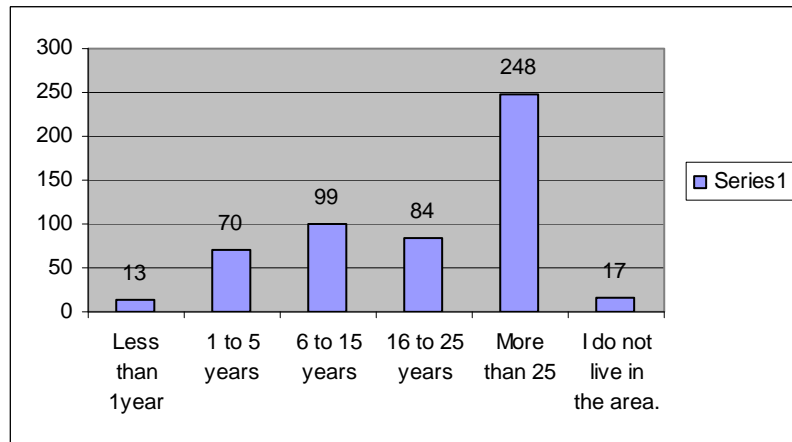
UDAC Report on the 2007 Public Perception Survey

With the public's interest being held in high regard, 2,999 randomly selected households in the Springfield metro areas were chosen to be surveyed. The initial mailing took place on January 11, 2007. Unfortunately, 722 of these addresses were "non-working" so the totals are based off of the 2,277 surveys that were successfully delivered. The survey contained 16 questions (some with additional parts; i.e. 11-A, 11-B, 11-C, etc...) addressing a variety of issues related to urban deer, most of which focused on determining the current cultural carrying capacity of deer in the study area. In this instance, the cultural carrying capacity is best defined as the number of deer that can exist in the area to provide good wildlife viewing opportunities without becoming a nuisance to the residents. In addition to the survey questions, a comments section was provided for participants to make specific comments.

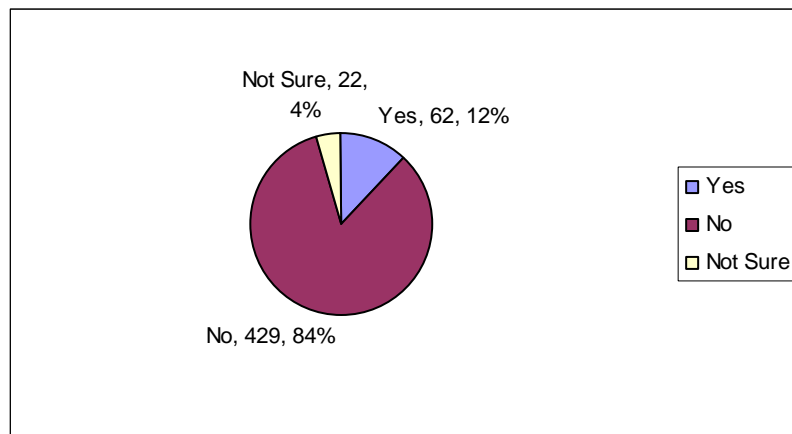
This portion of the document is the official report developed from the results of the survey (written comments included {names and addresses have been removed for privacy}). Each question is listed and followed by a graphical representation of the response it gained and a short explanation (if clarification is necessary). It should be noted that each question received a different number of responses (either due to participants missing or skipping parts of the survey). As such, the percentage of response to each question has been graded in comparison to the number of responses that particular question (or question part) received. Due to the high expenses, this was a single mailing survey. The final cut-off date for including survey responses was April 15, 2007, as of which 531 surveys had been received and recorded. This equals a 23% return which is considered good for a single mailing survey. Please allow a +/- 3% for human and/or mechanical errors.

Following the results of the UDAC survey, will be the recommendations for the management of deer with in the Springfield metro area. These recommendations have been made by the UDAC as a result of their yearlong project (April 2006 – April 2007), of research into deer management techniques in other urban areas. It is suggested that all municipalities and agencies within the Springfield metro area review these plans and take action now to prevent the problems that will be associated with a large deer population in the future. Being proactive in urban deer management is much more economical that being reactive.

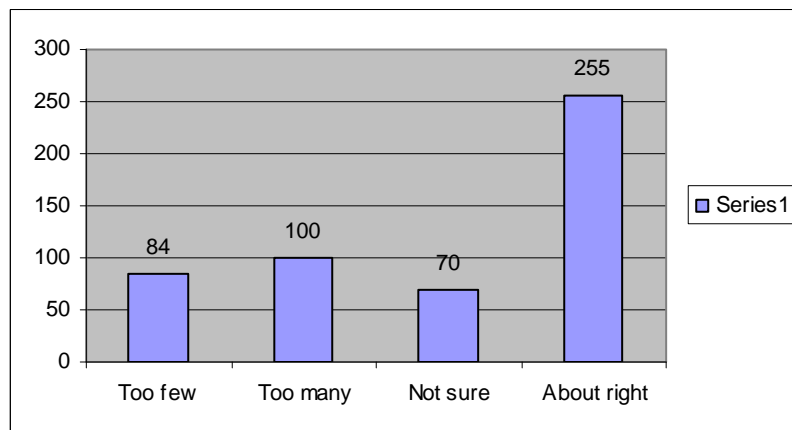
1. How long have you lived in the Greater Springfield Metro Area?



2. Before receiving this questionnaire, had you heard of the Greater Springfield Urban Deer Action Committee?

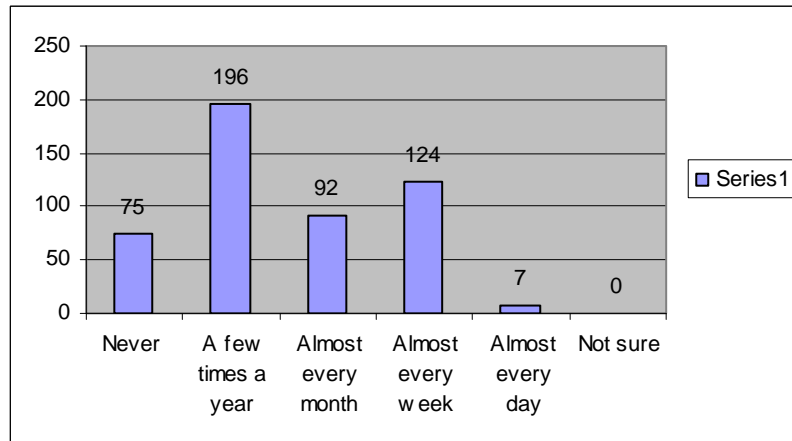


3. Think about the number of deer in the area where you live. Indicate whether you think the number of deer is “too few,” “about right,” or “too many.”

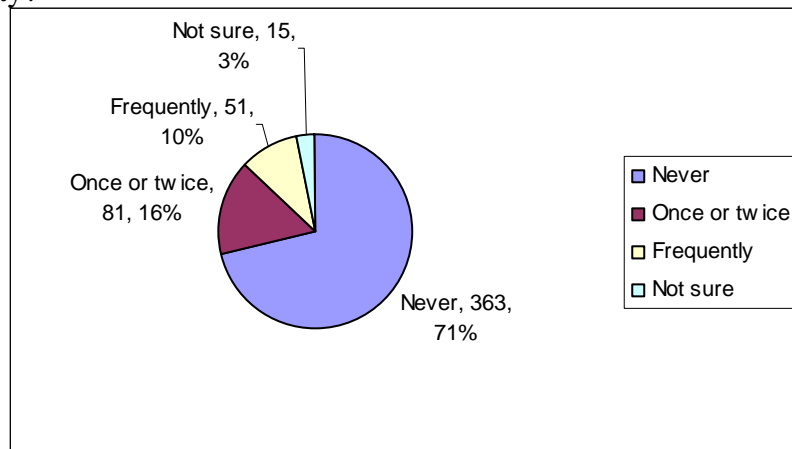


This question simply relates the public’s perception on the number of deer in their area.

4. In the past year, how often have you seen deer on or near the property where you live?

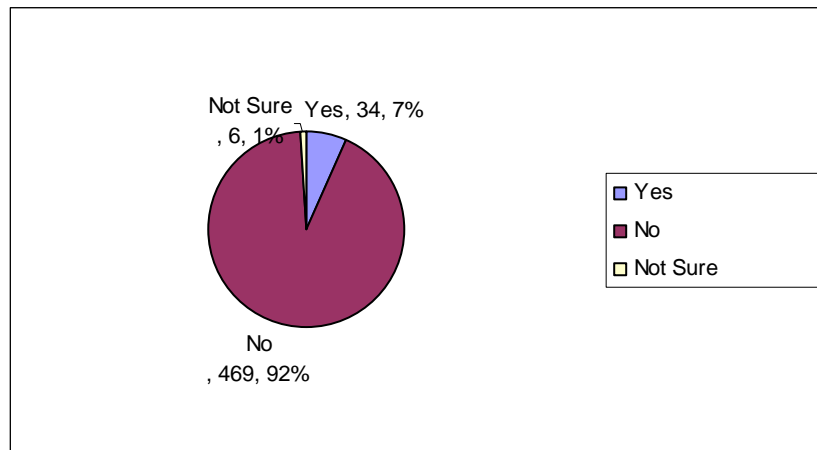


5. In the past year, how often have you experienced plant or landscape damage from deer on your property?

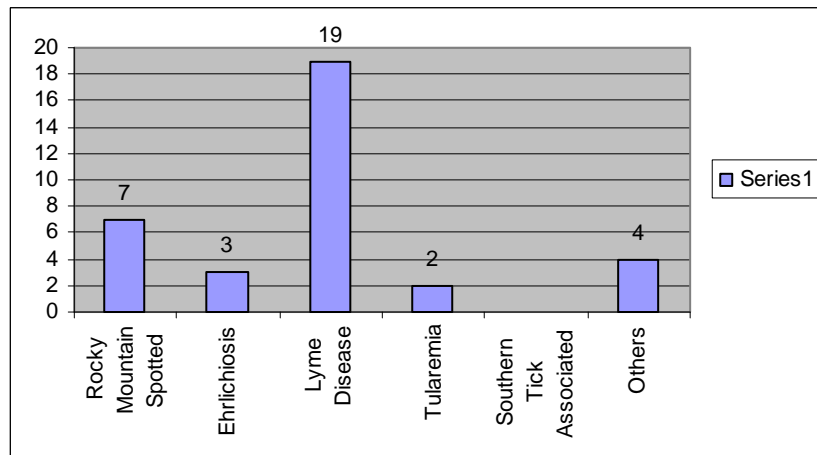


The results of this question show that overall, more than one quarter (~ 26%) of the Springfield metro area residents have received some form of deer related plant / landscape damage over the course of the last year. This may seem low, but it is actually bordering a high percentage for deer damage when compared to other municipalities experiencing similar urban/suburban deer issues. There is the possibility that some of these in the “never” category have received some deer related damage and either not seen or recognized it as such. Other factors to consider were that those not receiving deer damage may have not had features on their property that attract deer (i.e. flower/vegetable gardens). This indepth view of deer damage did not fit into the structure of this survey.

6. In the past *five* years, have you or has someone in your immediate family been impacted by a tick related illness?

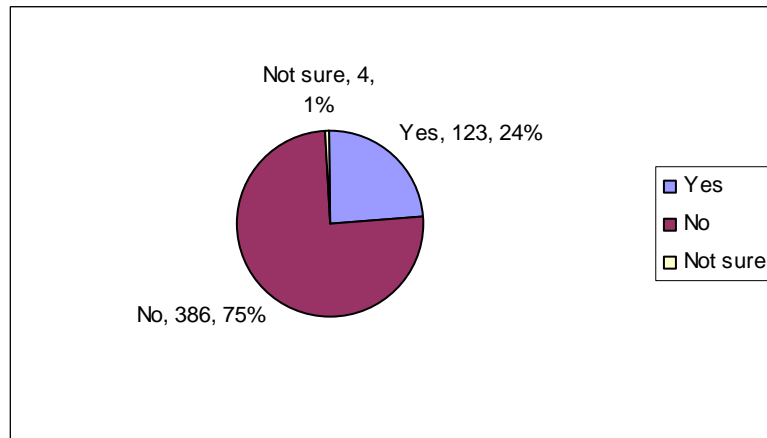


Breakdown of Tick Related Diseases:



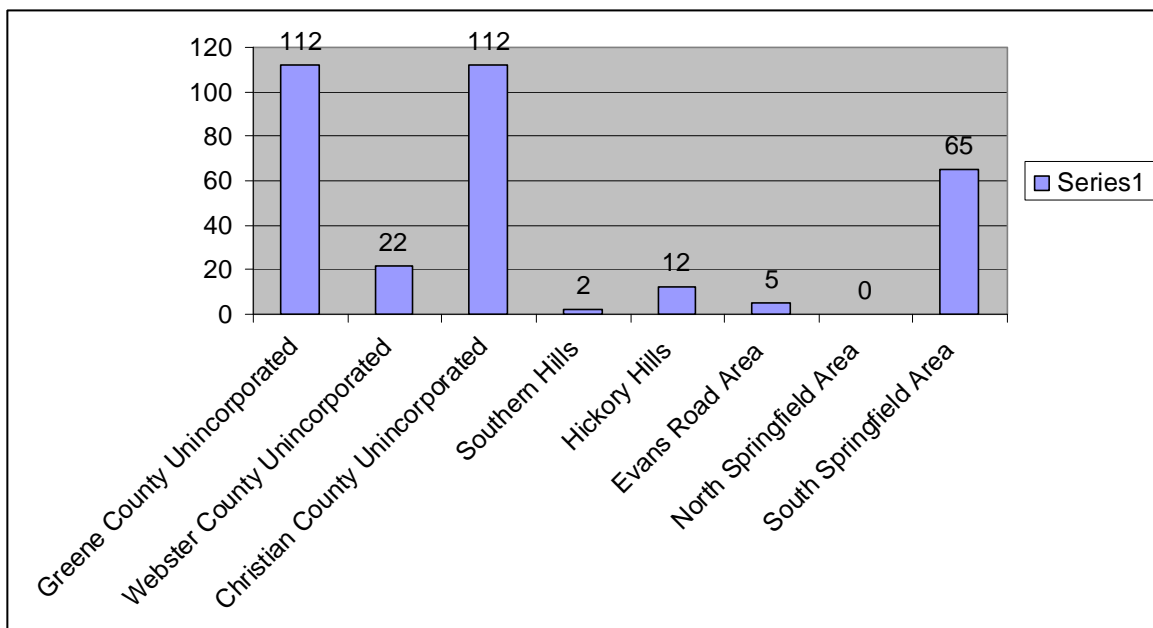
The response of seven percent of respondents having themselves or a family member with a tick-related disease is extremely high. Until a few years ago, the local health department would only document a few such cases a year. Note some of these cases may not be documented in Springfield, but in other cities. Tick-related illnesses have gained much publicity as many of them are hard to diagnose and treat. Lyme disease for example can have a wide range of effects on people (varying on a person's immune system). These effects may range from headache, fatigue, and skin rash, to more serious symptoms. The key with any tick-related illness is early detection and treatment. It should be noted that these diseases are not related solely to the deer; as other mammalian species may contract and carry these diseases. However, a high deer population helps foster a high number of ticks, as well as helping transport a present disease at a faster rate than say a deer mouse would.

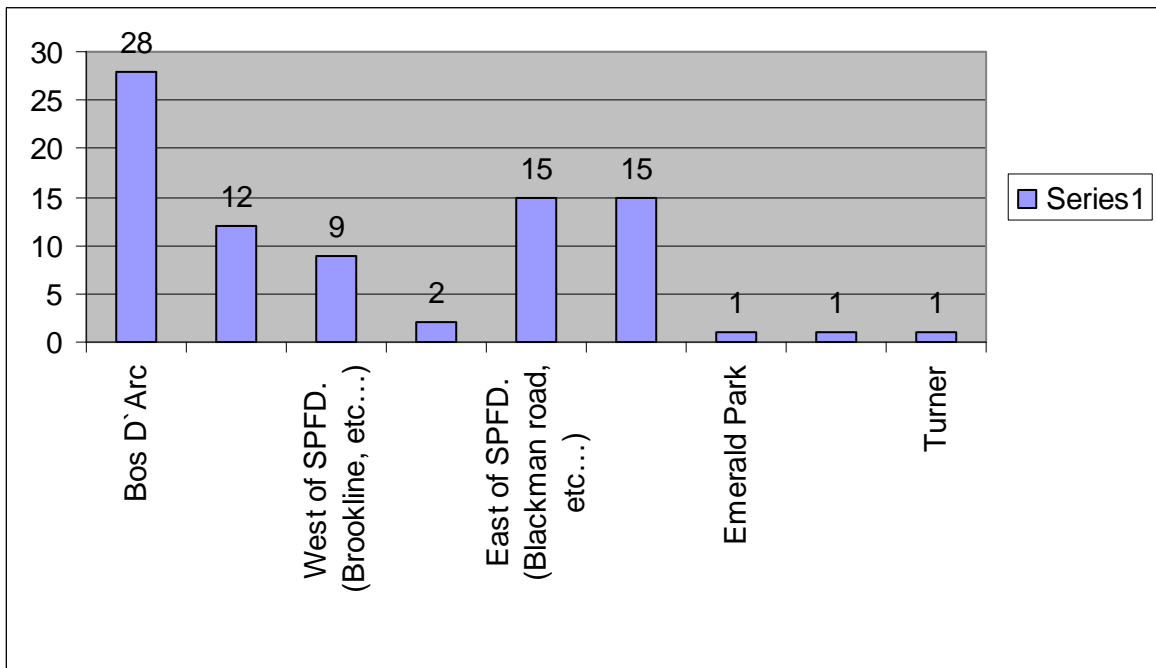
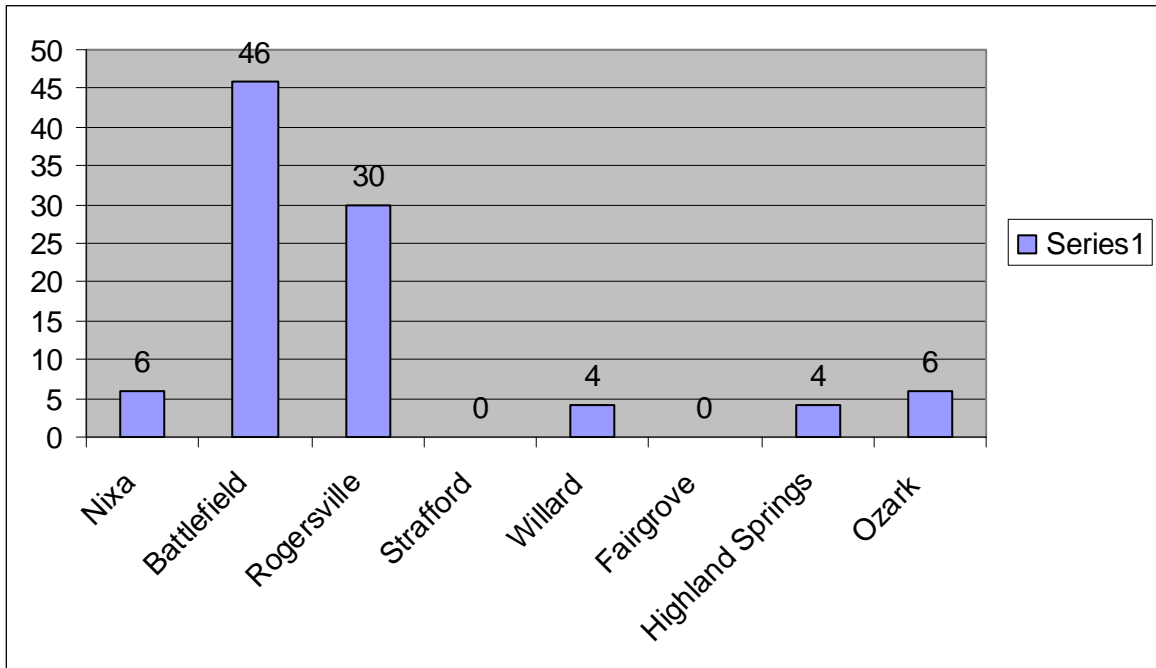
7. In the past *five* years, have you or has someone in your immediate family been a driver or a passenger in a car that has hit a deer in the Greater Springfield Metro Area?



Twenty-four percent (nearly one quarter) of all respondents being themselves or having family members involved in a Deer Vehicle Collision (DVC) is also a high number.

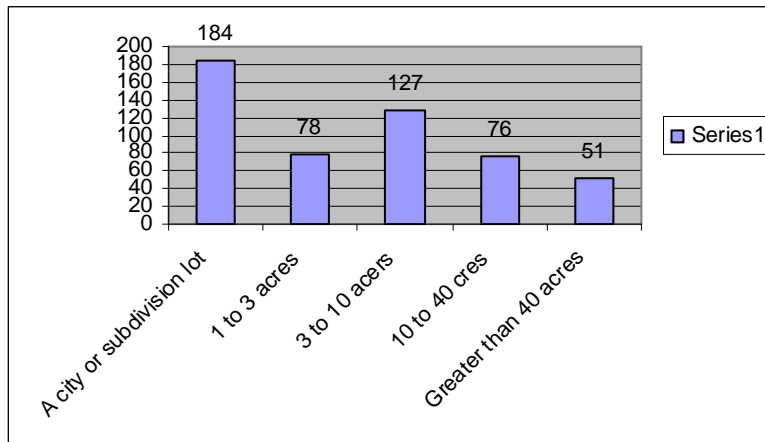
8. Where do you live within the Greater Springfield Metro Area?



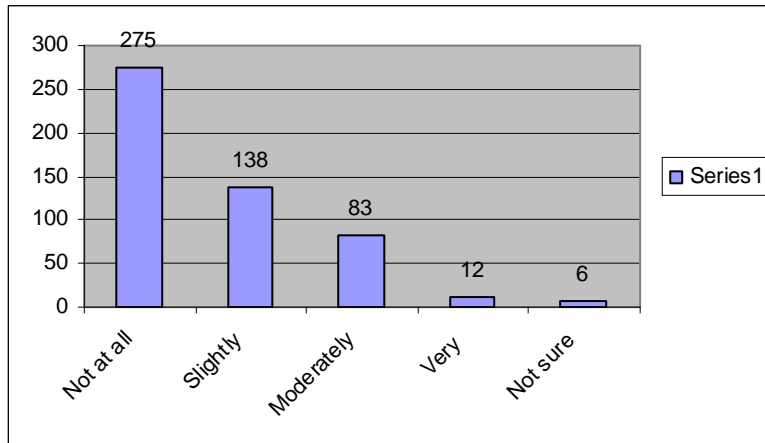


Surveys were sent out based on the random selection of ten zip codes. From each zip code, 300 random addresses were selected. This explains the resulting dispersion of the surveys and thus the reason some metro areas received no surveys. Ideally, a survey would be sent to every resident, but high costs strictly limit the number of contacts that can be made.

9. Is your dwelling located on (how much property)?

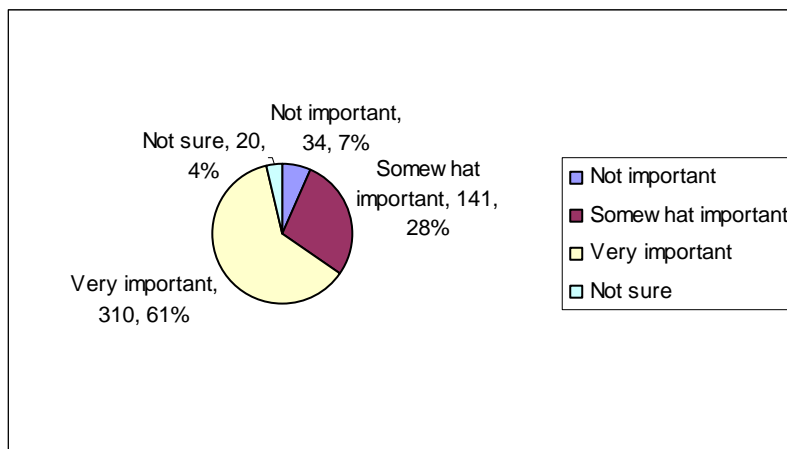


10. How informed are you about deer management in Greater Springfield Metro Area?

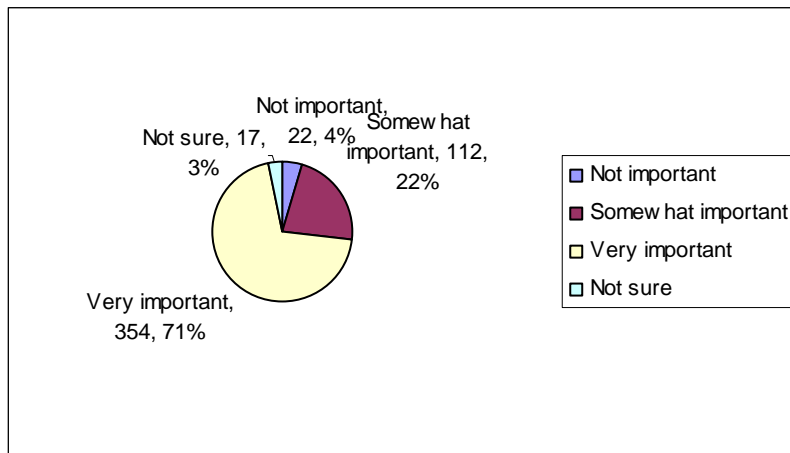


11. In general, how important is it to you to have a deer management plan in Greater Springfield Metro Area that accomplishes the following? (eight part question)

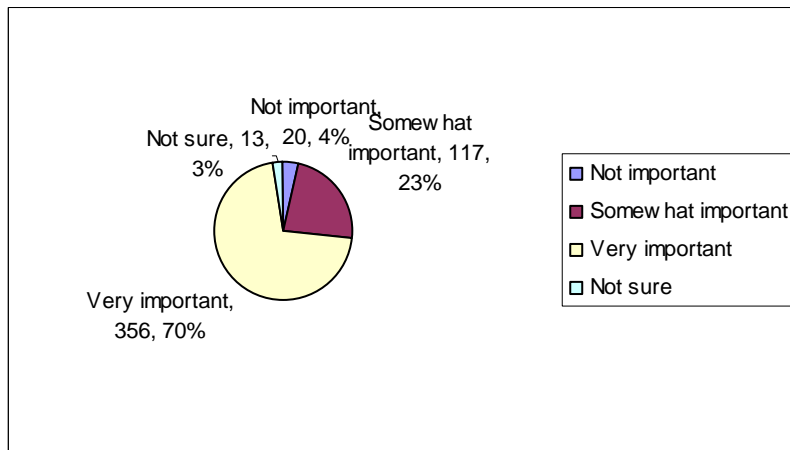
A. Reduces the number of car collisions with deer in the area.



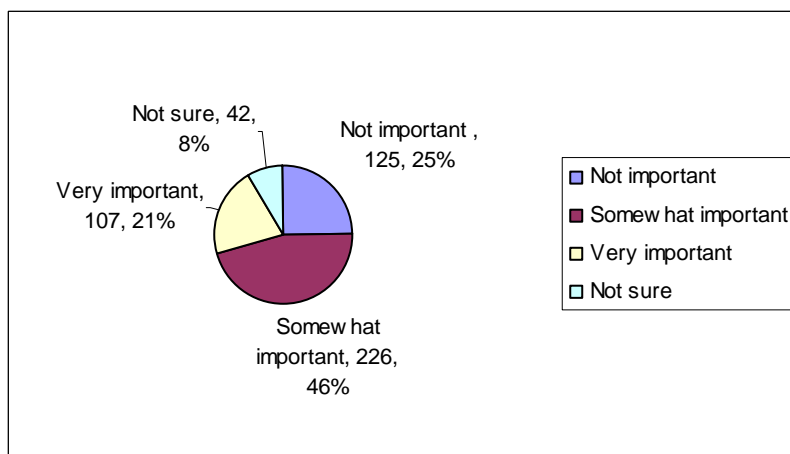
B. Maintains a healthy deer population in the Metro Area.



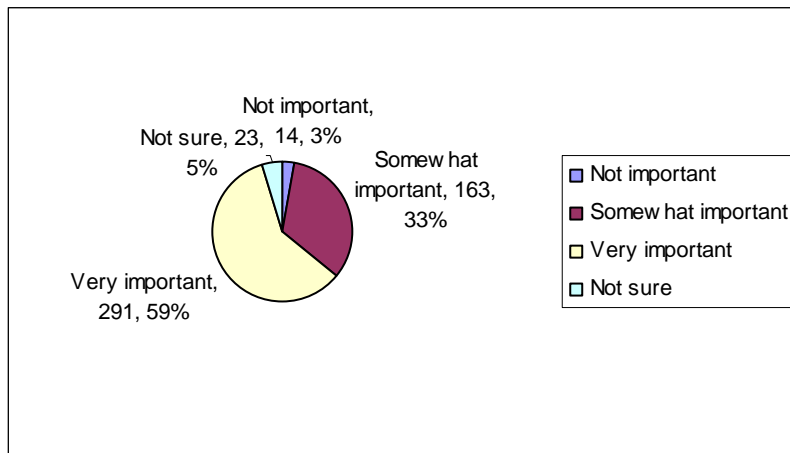
C. Reduces the risk of diseases associated with deer, such as Lyme disease.



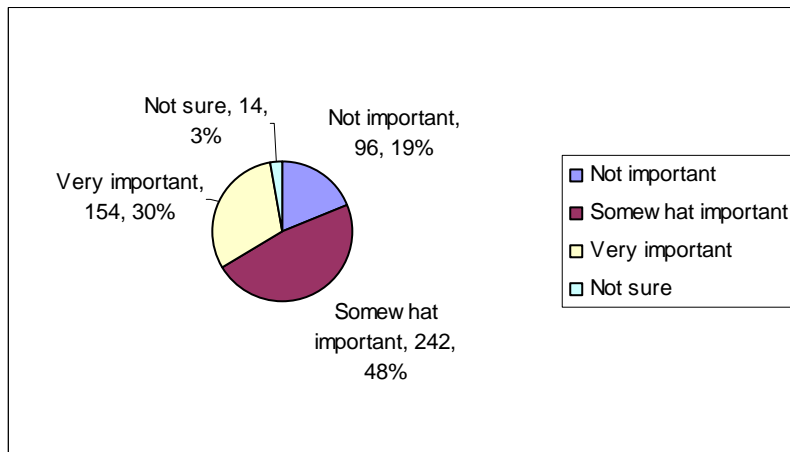
D. Does not upset local residents.



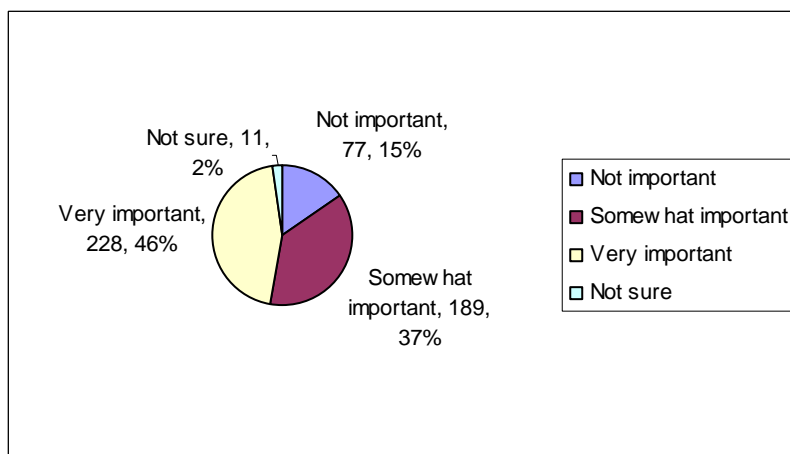
E. Maintains a diversity of plants and animals in the Metro Area.



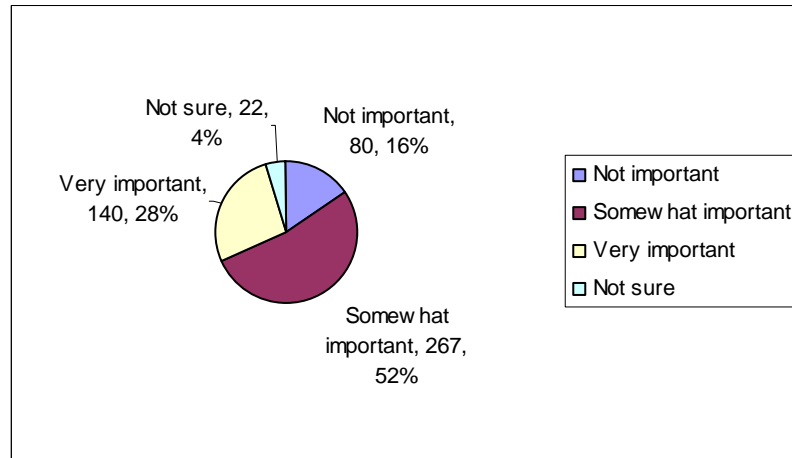
F. Reduces damage by deer to gardens and landscaping.



G. Maintains opportunities to see deer in the Metro Area.



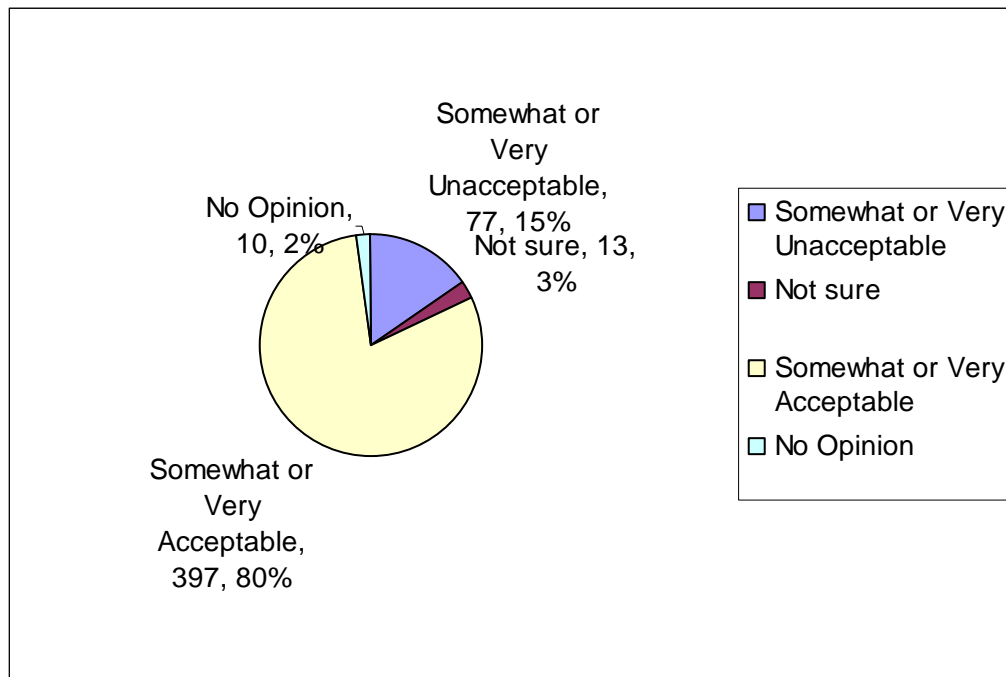
H. Reduces damage done by deer to native plant species in the Metro Area.



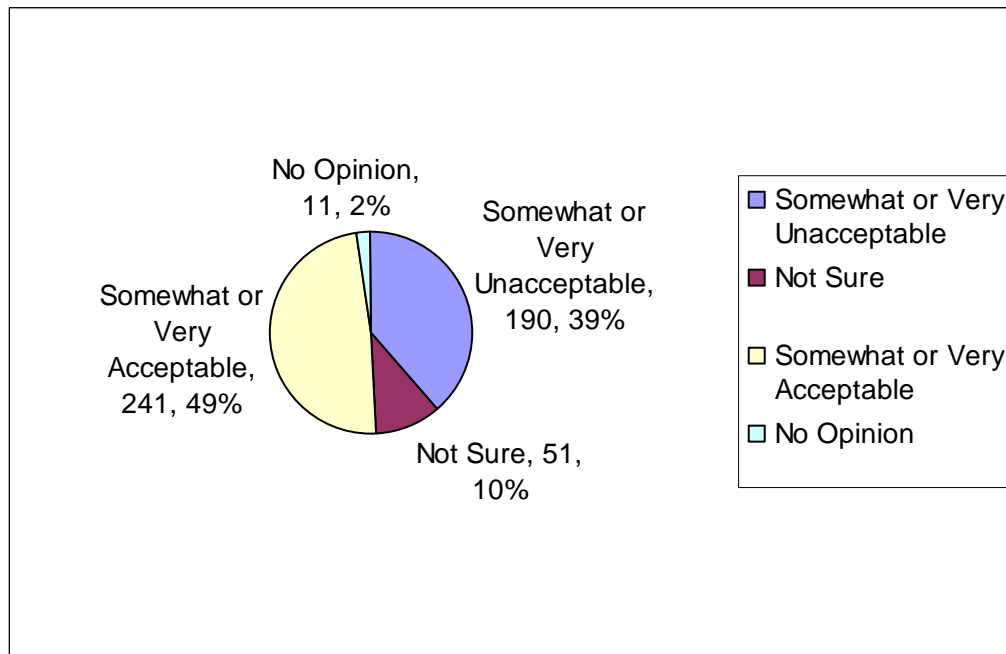
12. In your opinion, how acceptable or unacceptable is it for your municipality to take each of the following actions concerning the management of the deer population in the Greater Springfield Metro Area? (four part question)

This question was used to determine the public's acceptance of various deer management tools that are available to local municipalities.

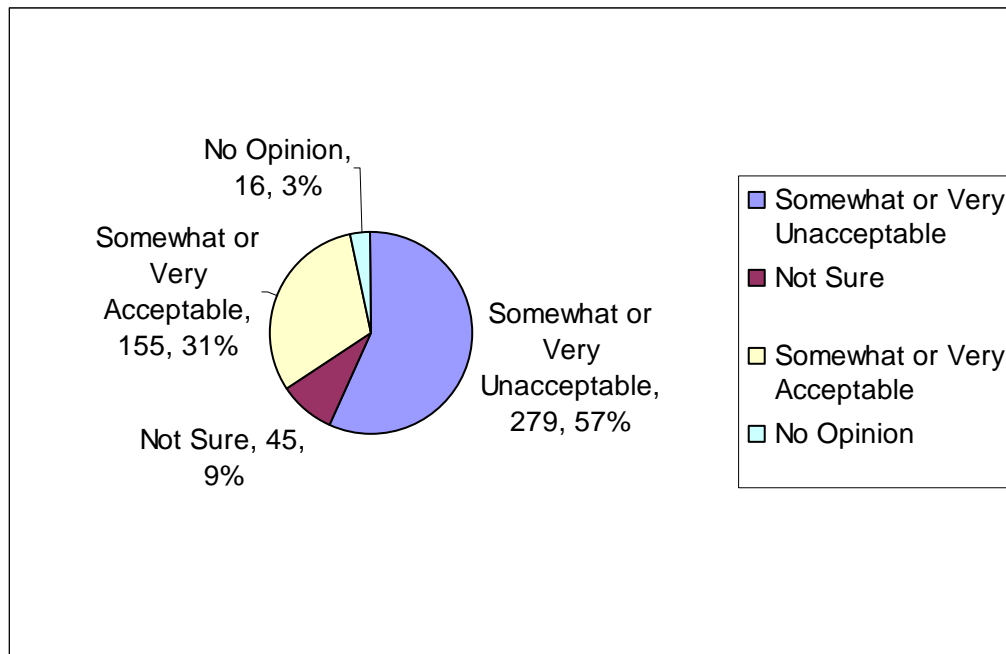
A. Controlled hunting



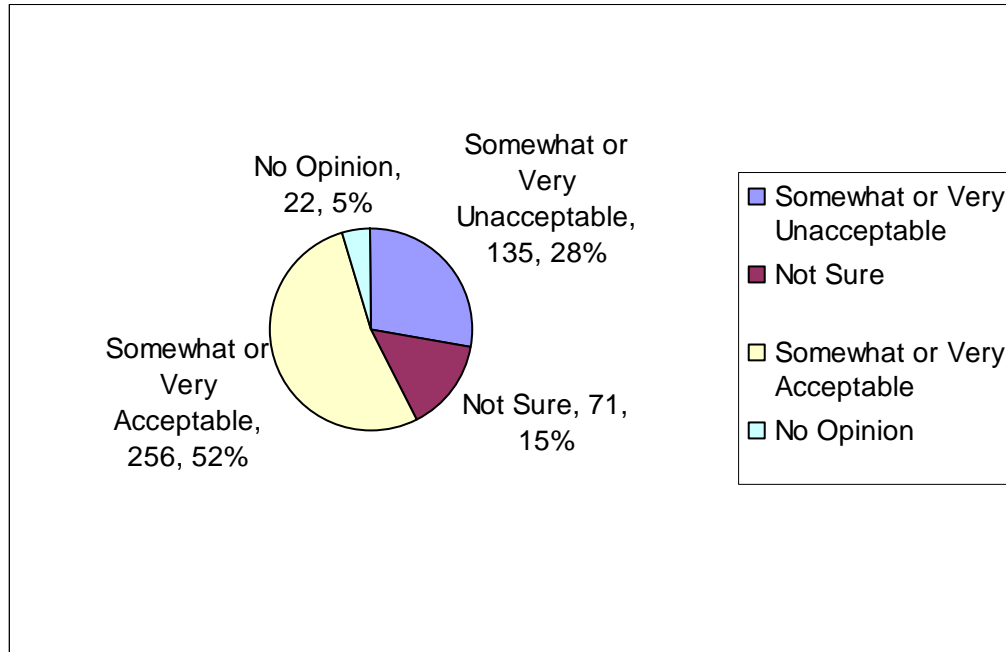
B. Sharp-shooting



C. Trapping and Euthanasia



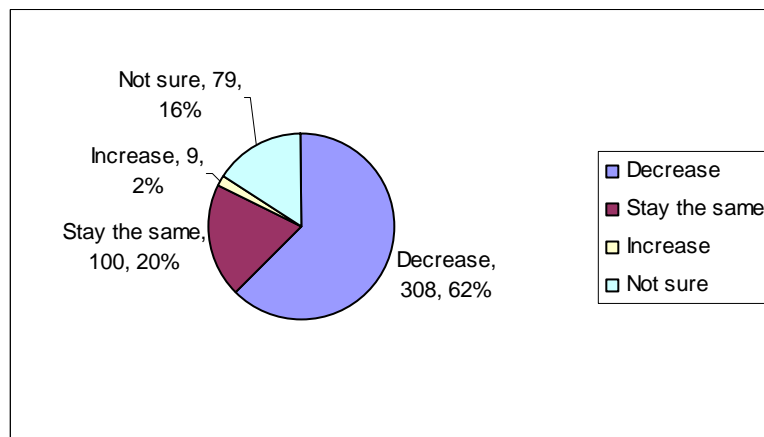
D. Damage Control



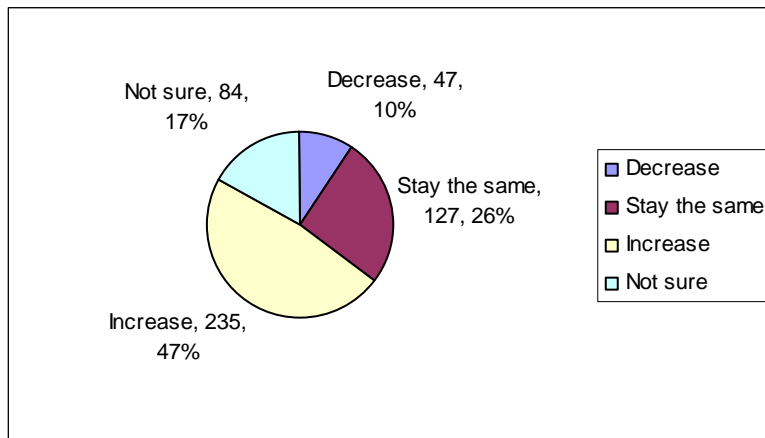
The response to this question (#12 A-D) clearly shows that controlled hunting was the favored method of control with **80%** of respondents stating that it was somewhat or very acceptable to them. When asked a similar question in 1997 in a survey conducted by the SMSU Department of Biology only 14.9% of those surveyed responded favorably to controlled hunting, a significant difference from the current survey. In the second “favored” method spot there was a near tie for sharp-shooting and damage control (**49%** and **52%** somewhat or very acceptable {respectively}). The least favored method of control was trapping and euthanasia which only gained a somewhat or very acceptable rating of **31** percent.

13. In your opinion, if **LETHAL CONTROL** (by controlled hunting, sharp-shooting, or trapping and euthanasia) is the method selected for managing the deer population in the Greater Springfield Metro Area, would the following decrease, increase, or stay the same IN THE LONG RUN? (eight part question)

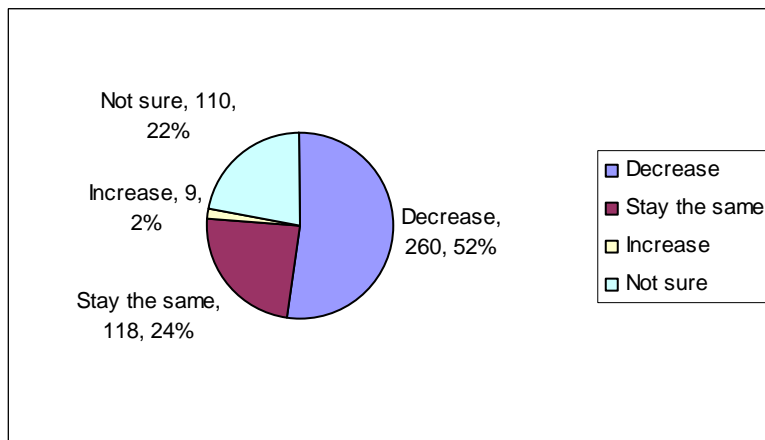
A. The number of car collisions with deer in the area.



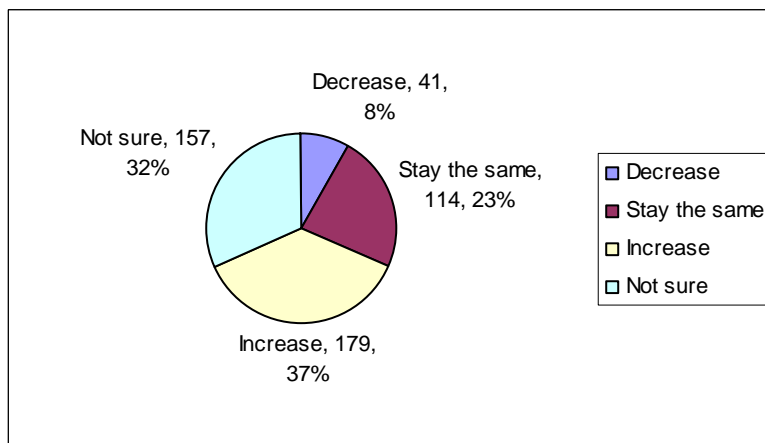
B. Health of the deer population in the Metro Area.



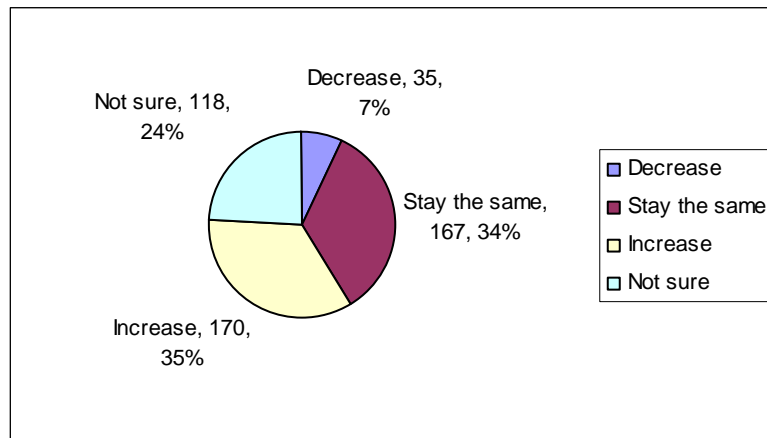
C. Risk of diseases associated with deer, such as Lyme disease.



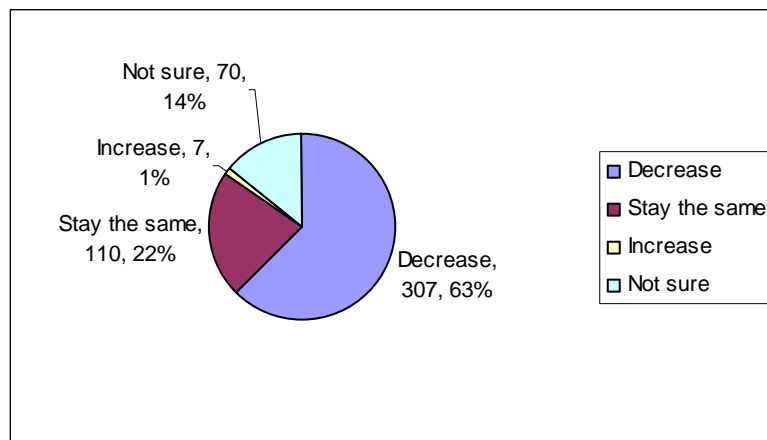
D. Satisfaction of local residents with deer management in the Metro Area.



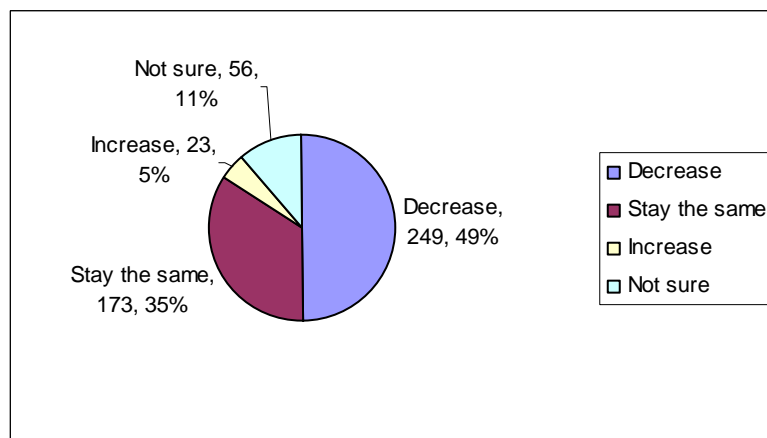
E. Diversity of plants and animals in the Metro Area.



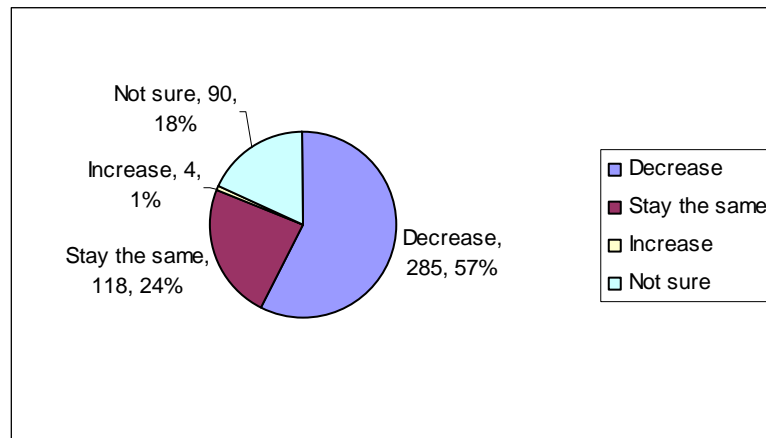
F. Damage by deer to gardens and landscaping.



G. Opportunities to see deer in the Metro Area.

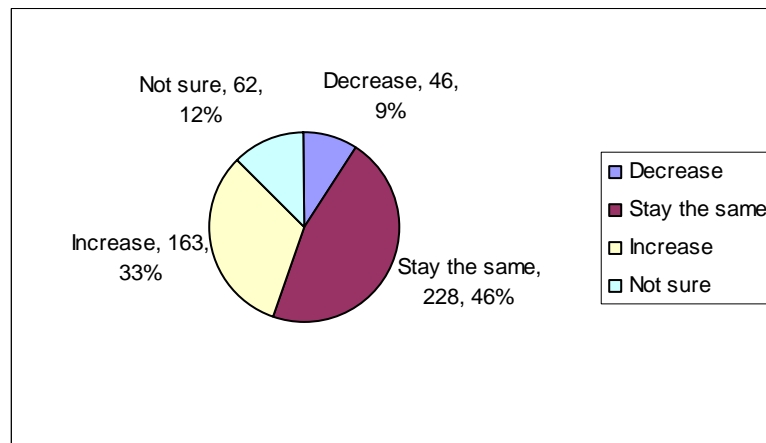


H. Damage done by deer to native plant species in the Metro Area.

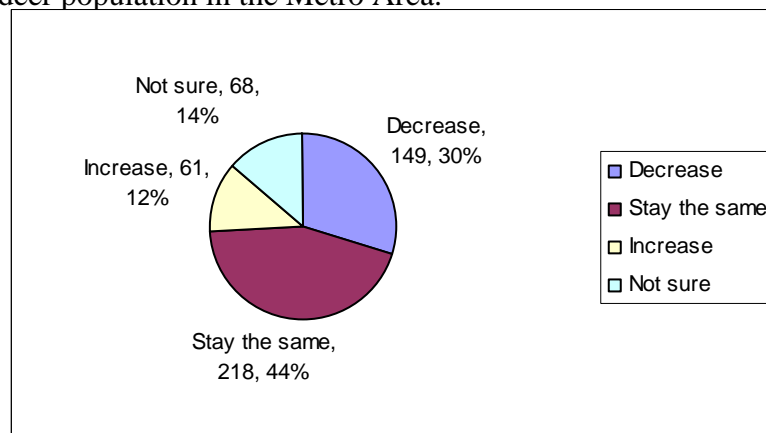


14. In your opinion, if **DAMAGE CONTROL** (by encouraging residents to use fencing, repellants, and scare tactics to control deer damage) is the method selected for managing the deer population in the Greater Springfield Metro Area, would the following decrease, increase, or stay the same IN THE LONG RUN? (eight part question)

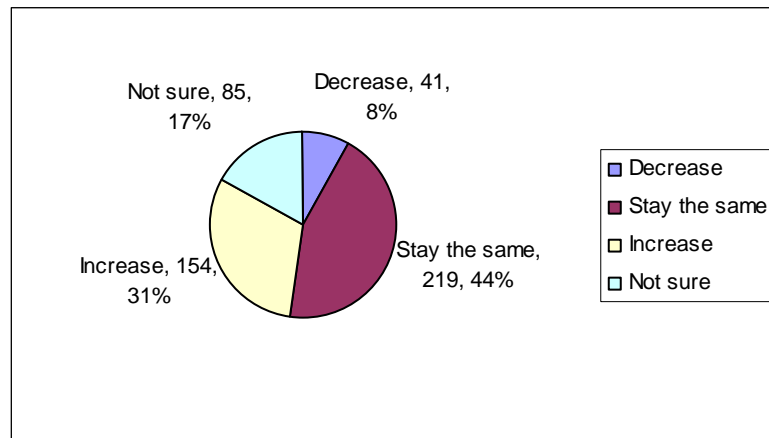
A. The number of car collisions with deer in the area.



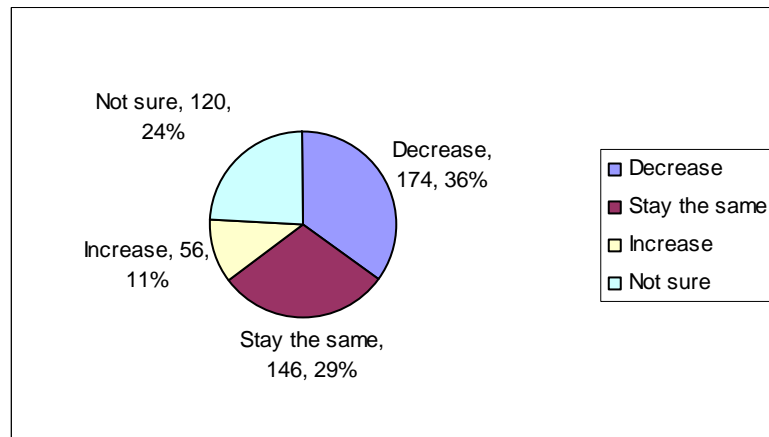
B. Health of the deer population in the Metro Area.



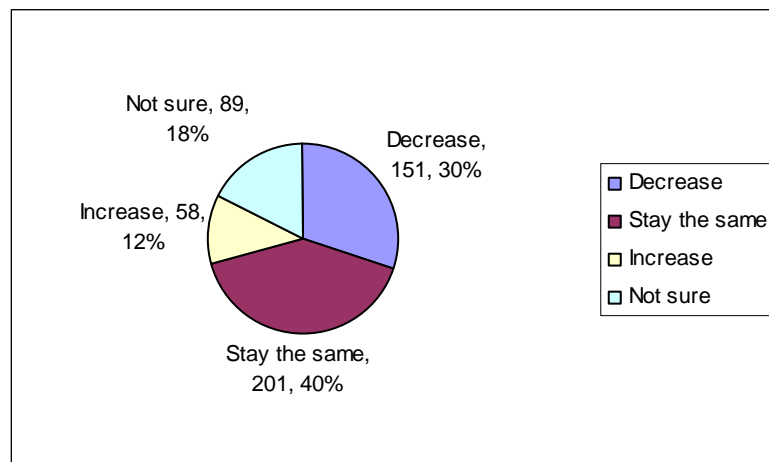
C. Risk of diseases associated with deer, such as Lyme disease.



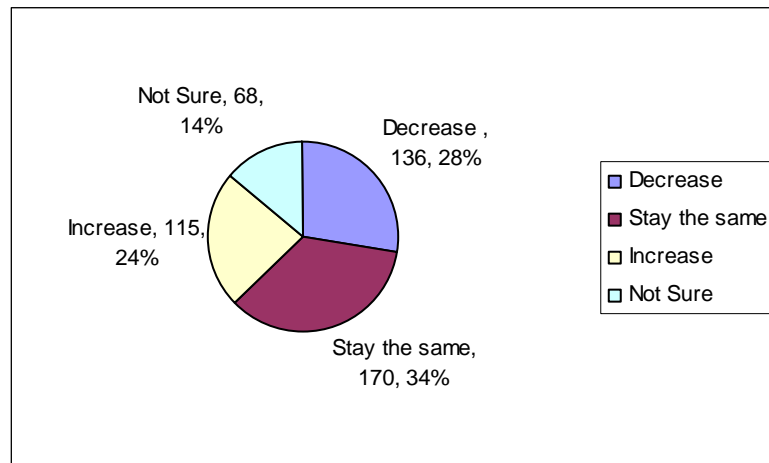
D. Satisfaction of local residents with deer management in the Metro Area.



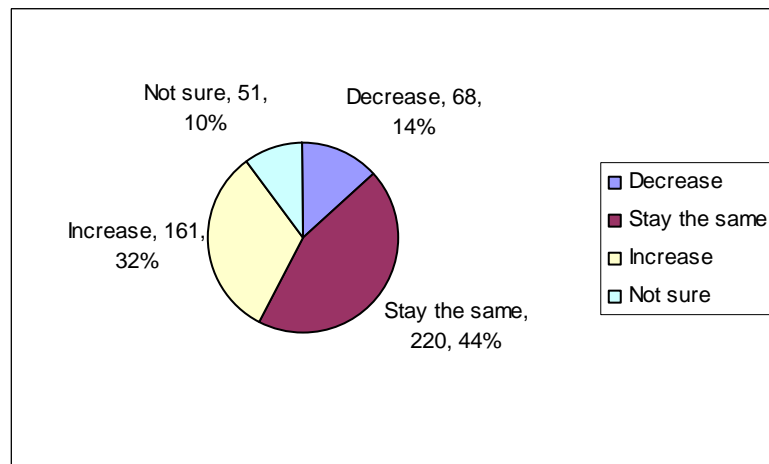
E. Diversity of plants and animals in the Metro Area.



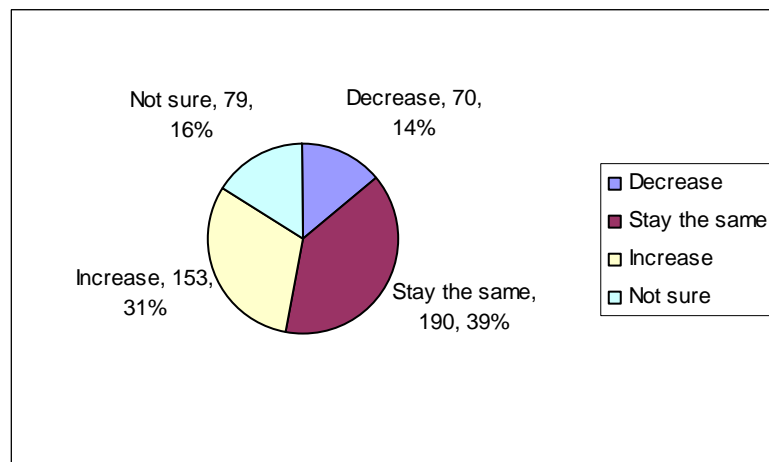
F. Damage by deer to gardens and landscaping.



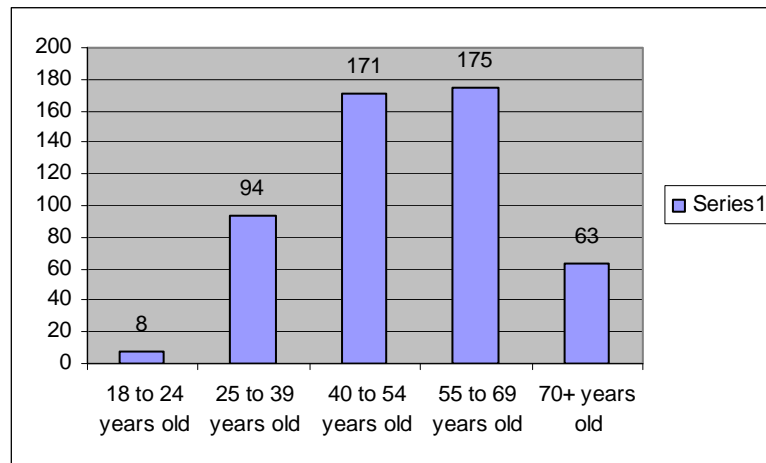
G. Opportunities to see deer in the Metro Area.



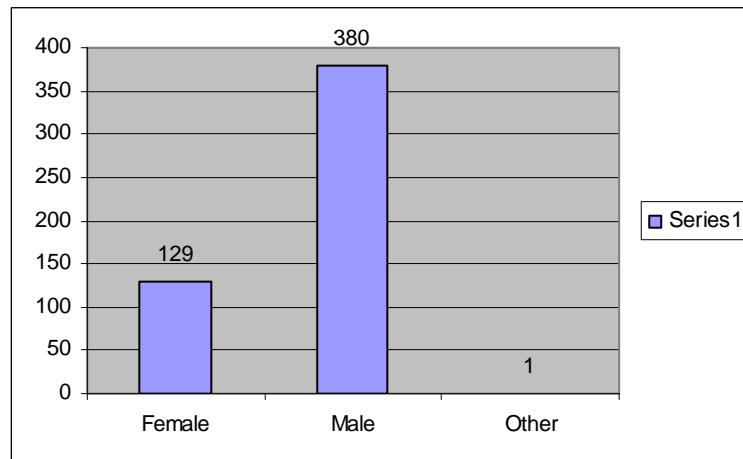
H. Damage done by deer to native plant species in the Metro Area.



15. What is your age?



16. What is your gender?



Comments Received from the Public Perception Survey.

The following pages include all comments received. We received 107 total comments. The comments were grouped into three categories for analysis. Action needed. No action needed and Uncertain if action is needed. 60% of the comments indicated that Action was needed. 34% of the comments indicated that No Action was needed. While 6% indicated that they were uncertain if action was needed to control the deer population in the Greater Springfield Metro Area. It should be noted that not many names and addresses were received with the surveys. Those that did have names and specific addresses have been removed and replaced with “unknown” to protect the privacy of the person who commented. As stated above the comments section, these may have been edited for length, grammar, and/or content where necessary.

Phone & Written Responses (edited for length & grammar) to UDAC Surveys:

Date	Name/Address	Comments
1-12-07	Unknown	Mr. _____ lives close to Wilson Creek NPS and says our estimated deer pop. may be low! They have had close encounters with deer and have a friend with Lyme d. Excited for the survey, for most mgmt. tools.
1-24-07	Unknown	I love the deer but I am not knowledgeable about the broader issues.
1-24-07	Unknown	Moved to Ozark rural area for the wildlife. Armadillos more of a problem but deer could be if not controlled. DVC's (Deer Vehicle Collision's) and desensitizing to humans are the threat.
1-24-07	Unknown	Do not see deer in our areas. They are not a problem here. I know a mile from here there are some deer.
1-24-07	Unknown	Does not like deer scare tactics. Does not like number of DVC's because it raises auto insurance rates.
1-24-07	Unknown	I am a bow-hunter and enjoy watching deer. Working for public works, I see and hear about many DVC's. Feels some areas in and around Springfield do need deer control.
1-24-07	Unknown	Open deer hunting longer to allow hunters to kill more deer for food.

1-24-07	Unknown	Lived near Willard from '93-'03 and saw numerous deer with damage (to properties). Moved to Fordland and have only seen deer twice from '04-'07 and I now live in a more rural area.
1-24-07	Unknown	Believes in conservation, not radical environmentalism. Deer should be present, and healthy, sometimes killing is necessary (in controlled manner). Balance in nature and safety both important.
1-24-07	Unknown	Should trap and relocate deer. That would be better than killing. You will never satisfy city residents, to them deer will always be in the way.
1-24-07	Unknown	We should be able to hunt with shotguns using buckshot, because it does not travel far.
1-24-07	Unknown	This (survey) is a waste of tax payer's money (X's 3). Hates people who destroy land and wants to see more animals on his property!
1-24-07	Unknown	Urban portion of firearms season is important and should continue. Wilson's Creek and some areas of SPFD should be opened up to bow hunting & some areas for muzzle load hunting.
1-25-07	Unknown	Appreciates the opportunity to voice his opinion. If the deer population is too high in the SPFD area he would encourage hunting (while he himself is not a hunter). Wants to make sure that we are aware of the deer issues at Wilson Creek Battlefield. Thank you.
1-25-07	Unknown	Allows bow hunter in their woods to harvest 1-2 deer/year.
1-25-07	Unknown	Thank-you for bringing this problem to our attention. Hopefully steps can be taken that will "please" everyone.
1-25-07	Unknown	Any hunting allowed should be carefully controlled.
1-25-07	Unknown	Very concerned with use of firearms near residence. Bow hunting is ok with him but firearms should not be allowed.
1-25-07	Unknown	Our area outside of Rogersville has been

		over hunted and we no longer see deer. There needs to be a happy medium and we appreciate whatever you can do.
1-25-07	Unknown	Five DVC's in four years, Ouch! Where do I send for a refund on damage from hitting deer with my car? Deer season should be 12 months a year. They are such a hazard to cars. Expensive to repair damage and does not help resale on the car.
1-25-07	Unknown	There is a need for more wildlife in the area and we should learn to live with the inconvenience. Thanks.
1-25-07	Unknown	Deer are not urban "wild game". People and wild animals do not interact well. I am tired of dodging deer running across the highway. If I want to see deer I will go to a natural area.
1-25-07	Unknown	Too Many Deer!
1-25-07	Unknown	Does not hunt, but the meat from management hunting should be used to feed the poor.
1-25-07	Unknown	Forty-nine year old cousin died from Lyme disease in 2006. Thank-you for giving us the opportunity to fill out this survey.
1-25-07	Unknown	There is only so much space to go around, population increase means we have to share the available space. The deer problem is much less than the neighbors' dogs. I would be in favor of controlled hunting, sharp shooting, and all other means to thin those (dogs) out!
1-25-07	Unknown	I have talked with people that have deer problems and have been asked to give permission to bow hunt. Keep in mind that these deer cause them problems eating flowers/gardens. The answer is no (to lethal control), we enjoy watching them.
1-25-07	Unknown	We have too many deer in Missouri!
1-25-07	Unknown	Regularly feed deer and put out salt/mineral in harsh weather. Please do not use steel leg traps/snares for deer. Cage or net traps only.
1-25-07	Unknown	I believe the SPFD metro area should be open to controlled hunting.
1-25-07	Unknown	Appreciates residents/taxpayers having

		input, but asks that we (UDAC) use sound game management. (scientifically proven), and not what people feel should be done.
1-25-07	Unknown	Thank-you for letting me participates. In my opinion, it is not the deer population that is the problem, but the overpopulation of the human race. God Help Us. Sincerely, _____.
1-25-07	Unknown	I do not hunt, but enjoy seeing deer in the area I live. However, I support and understand hunting. I also support a blend of controlled hunting and damage control for the deer problem.
1-25-07	Unknown	Finds it amusing that so many people want to be close to nature, but do not want nature close to them.
1-25-07	Unknown	Damage to vehicles will increase as vehicle numbers rise. Control human population growth and urban sprawl before animal population. Humans are destroying the environment, not the creatures around us.
1-26-07	Unknown	A deer has run into me twice in the past four years. Something must be done. Controlled hunting and extended seasons, etc... Thanks to Adam and Brad (UDAC) for listening. If nothing is done, I feel Missouri will have to be held responsible.
1-26-07	Unknown	Why not trap and relocate deer to outlying areas (such as near our home location near Spokane, we have none {deer}).
1-26-07	Unknown	Damage control will not work, because people will not spend the money to do it. I live on a farm in South Greene County, see deer frequently, but have not had a problem yet.
1-26-07	Unknown	Last year we had a group of five deer walking behind our fence. This year they have been seen in some yards. But, I have not heard of anyone having any problems and everyone seems to enjoy their (deer) presence.

1-26-07	Unknown	Focus on managed hunts for the municipalities (please). In rural Webster county, the early urban firearms season wrecks our bow season. I support managed urban hunts in the municipalities and a shotgun only firearms season outside the peak of the rut. Bow (season) start and end times are excellent. Early urban season should be confined to municipalities and perhaps, a 5 mile area surrounding them.
1-30-07	Unknown	I think the problem must be controlled one way or another. I travel all over town everyday with my work and I see an amazing amount of deer.
1-30-07	Unknown	I enjoy seeing the wildlife in SPFD. I feel we (humans) should be to blame for the deer problems due to the increase in subdivisions and decrease in parks/land conservation. We must set more land aside for our wildlife.
1-30-07	Unknown	With all other deer seasons, adding another special season seems ridiculous. I live near Busiek State Park and have seen a steady decline in deer and turkey over the last several years. With all the traffic on 65 & 160, if there was only one deer in Christian Co., his chances of being run over would still be very HIGH.
1-30-07	Unknown	Make land more available to hunt that needs deer management. Land owners should be encouraged to let hunters know their land is available to hunt.
1-30-07	Unknown	I am really uncomfortable with hunting (esp. for pleasure which motivates most hunters), but I understand the problems that come with a new population that no longer has natural predators. Is bow hunting a humane way of killing deer? I am conflicted about this... I wish you wisdom as you address this difficult project!
1-30-07	Unknown	I know vehicle collisions are a concern.

		To decide on a method to use for controlling deer, you need to evaluate the potential risks to humans in the area (on the various levels). I can not make predictions on the out come with no data to use.
1-30-07	Unknown	We see deer killed on the road all year. People (it seems) are more of a problem than the deer. I have learned what plants deer do not like and plant accordingly.
1-30-07	Unknown	No matter how many deer there are, they will still eat plants/gardens. They move to where the food is.
1-30-07	Unknown	Help and protect the deer. They have a right to live as well as the humans.
1-30-07	Unknown	My opinion is that DVC's are as much the fault of the driver's (speed/talking on phone/inattention/ignorance of deer habits). Keep up the wonderful work you are doing.
1-30-07	Unknown	Use to see a lot of deer until the land behind me was cleared for new housing, now I do not see any.
1-30-07	Unknown	I love the idea of donating the meat. I do feel killing the deer should be humanely without scaring them.
1-30-07	Unknown	I live near Wilson's Creek NPS. In 20 years I have had several near DVC's. I watch for deer and use caution when in frequently used areas. Several have been hit near my home. So how do you miss all these deer if you do not pay attention? I see on average 3-5 deer 5 to 6 times/week.
1-30-07	Unknown	I would like to apply for the sharp shooting position!
1-30-07	Unknown	Make the public more aware of your committee and the problems associated with deer. Keep up the good work.
1-30-07	Unknown	Good luck with your efforts.
1-30-07	Unknown	I do not feel the deer overpopulation is a serious problem in SPFD. Damage control should be left of the individual landowners. Any man made interference could result in more serious long term problems. Existing hunting control works.
1-30-07	Unknown	Some residents will be upset if any deer

		are killed. Overall, I doubt that anything we do will reduce the numbers much, but maybe we can keep the problem from getting worse.
1-30-07	Unknown	I hope to be able to see deer grazing in this area.
2-4-07	Unknown	As with all wildlife, man has taken the habitat away and then assumes no responsibility for his actions. They are Gods creatures too.
2-4-07	Unknown	I think bow hunting in city limits / populated areas has been proven effective. Bow hunting is not a threat to people on other properties. Rifle hunting would also work well in accepted areas.
2-4-07	Unknown	Deer are very pretty when grazing, plant more food plots and designate public viewing/photography areas. Make sure when one is killed (for mgmt.) the meat is not wasted.
2-5-07	Unknown	If one chooses to live in the wildlife's environment, he/she should expect and accept the results. The animals were here first. It is their world that we carelessly destroy as we destroy ourselves.
2-5-07	Unknown	Deer in this area have increased over the last 10 years. I believe this increase is due to the influx of housing/people that has reduced poaching.
2-5-07	Unknown	Keep trying to find another way for control.
2-5-07	Unknown	Use hired guns for safety (reasons) and use the meat for charity!!
2-5-07	Unknown	Controlled hunting/sharp shooting would be a waste of time/money with returns slim. Nothing was mentioned of donating meat from hunting to the needy. Uncontrolled dogs area a greater threat where I live and they are responsible for the change in seeing deer daily to seeing them only a few times a year.
2-5-07	Unknown	I think they should spread out deer season instead of just a certain time of the year. Too many hunters out at the same time can cause accidents (not safe for real hunters).
2-5-07	Unknown	If there is an overpopulation of deer,

		associated problems will also increase. In the absence of large predators, control of numbers is necessary. Any process of this control would probably raise issues with some of the population.
2-5-07	Unknown	We enjoy seeing the deer in our area (most everyone we know feels the same). It is esp. exciting/rewarding to see the young deer grazing with their mothers.
2-5-07	Unknown	Way too many deer. Not enough habitat. Deer Suffer & Humans Suffer. Ignore emotional responses and thin the herd drastically.
2-5-07	Unknown	We now have controlled hunting so nothing would change. All aspects would change if additional means of control were used.
2-5-07	Unknown	A controlled deer population would be healthier. The deer I see are around our subdivision (why I worry about sharp-shooting/controlled hunting). I feel trapping/euthanasia is the choice of least evil. I love watching the deer but am realistic and know we have a problem.
2-5-07	Unknown	Deer have a way of adapting to scare tactics. Overpopulation is hard on the deer and people/vegetation. Control by hunting is a definite plus. I feel there are enough hunters that would sufficiently control the deer population if a good enough program were initiated.
2-5-07	Unknown	I love to bow-hunt!
2-5-07	Unknown	Hunting is our heritage; it benefits the deer herds, hunters, and properties. Just set and enforce rules to keep it safe.
2-5-07	Unknown	Farmers should have right to kill deer on property from Sept. 1, to Feb. 1, no limit. Just reporting number killed to the MDC.
2-5-07	Unknown	I trust MDC to develop the best plan. Once the plan is ready it should be given to the public. Do not try to please everyone, but do what is best for the deer and the environment. Thank you for your concern and good work.
2-5-07	Unknown	I live where the three counties meet and

		the deer are too many. They are not afraid of people and eat their yards at night. This happens all over the Springfield area.
2-6-07	Unknown	Please do not kill the animals. They were here first, we are destroying their homes.
2-6-07	Unknown	If the landowners were allowed to harvest as many deer as they wanted in open units it would help control the population. Lowering the cost of bonus tags would also help. Gun season should be longer and should be expanded to some management areas that are bow hunting only.
2-6-07	Unknown	With all the new construction in SW SPFD, the deer are being chased out of their habitat and are moving into the populated areas. There should be some sort of preserve for them. They are not coming into our environment, but we are going into theirs.
2-6-07	Unknown	We enjoy seeing the deer.
2-6-07	Unknown	Hunting is by far the best option. Thank-you for asking. I hope your survey yields good data.
2-6-07	Unknown	My husband and I would both participate in an Urban Bow Season.
2-6-07	Unknown	I am an avid bow hunter. I am in favor of the controlled bow hunting. The use of special permits should be considered for the needs of the herd in different city areas. These will also help monitor the harvest. Thank-you and please keep me informed.
2-6-07	Unknown	We do not see deer in our area (of Greene Co.) and do not know of any problems.
2-6-07	Unknown	This is really confusing b/c I am not up to date with deer damage (i.e. DVC's).
2-6-07	Unknown	I question whether your department will ever do anything about the problematic species you have promoted in the past: otter, beaver, deer, & multi-flora rose.
2-6-07	Unknown	Are you sure there is documented Lyme d. in SW MO? We encroached on deer and should provide preservation for them. We are opposed to hunting (morally corrupt).
2-8-07	Unknown	I do not hear of a lot of damage done by

		deer. The hunting season seems to eliminate excessive population. I do enjoy seeing wild deer.
2-11-07	Unknown	I believe SPFD. has a deer problem. I live on 50 acres and do not see as many deer as I would like too. SPFD should have deer control... I have hit 3 deer in SPFD. limits in the last 10 years (James River Freeway & Battlefield).
2-11-07	Unknown	We hunt as a family, so hunting for population control is fine. Living in SPFD, I think it would be too dangerous to do it here. I do not hear negative comments about the deer, some people like seeing them.
2-11-07	Unknown	I love to bow hunt, and wish I had more time to sit in my tree stand. Thank-you. I will make time next fall.
2-11-07	Unknown	This (deer) problem began when _____ outlawed bow-hunting in the SPFD. limits against MDC's advice. Deer are Wild animals (not pets) and also taste good.
2-11-07	Unknown	I live on 20 acres and built my home here because of the wildlife and privacy. I enjoy seeing deer/turkey/song birds very much. I do not think the deer population is out of control here.
2-12-07	Unknown	There is a herd of 8-10 deer that travel my property daily. They have destroyed my garden/fruit trees/ornamental plants. I would like to harvest some of these deer, but my neighbor loves them (Bambi Syndrome). I can manage a few, but 8-10 is too many. The meat should be harvested.
2-14-07	Unknown	Some of your questions are loaded to support lethal control. If animals over populate, they will move on or natural control will take effect. Have you researched/considered animal corridors, or a large forested area where deer could take refuge or regulating the amount of development in an area? What about non lethal methods other cities use for deer?
2-14-07	Unknown	You need to lift hunting restrictions state

		wide and get the herd down.
2-14-07	Unknown	I would be happy to participate in a managed hunt. I believe most people know that with out a managed hunt, deer problems will increase. Why pay sharpshooters when citizens will pay to do it? I can drive any part of the KS Expwy. & W. Bypass and expect to see deer. I am surprised when I do not see 30+ deer near Lake Springfield.
2-14-07	Unknown	Some people are never satisfied. People with machinery do more damage to plants and landscapes than deer.
2-19-07	Unknown	People will not like how UDAC handles deer in the long run. Extend the existing seasons (allow hollow points) The deer will keep moving in (as others are killed).
2-28-07	Unknown	Thank-you for sending this survey. It is my opinion that it may not be popular to discuss/adopt and of these control practices, but doing what is right for the deer herd (and not what is popular) is important. Do what is necessary to control the herd's health and do not worry about "disturbing" citizens.
2-28-07	Unknown	Sorry questionnaire is late (ice storm besieged me). I think hunting is the best option, but the state should be more concerned with programs like Medicare and not the foliage in people's yards.
2-28-07	Unknown	Deer are controlled by hunting. Cities not allowing hunting make deer numbers increase. People moving into deer's homes must get along with the deer.
3-1-07	Unknown	Bow hunting should be allowed inside Wilson's Creek National Battlefield.
3-1-07	Unknown	In my opinion, urban sprawl is the biggest problem. We have encroached on them (deer), not them (deer) on us. Thank-you.

Public Forums

In an attempt to gather further public insight into the perceptions of citizens on the management of deer within the Springfield Metro Area, two public forums were held. The forums were located at Springfield Fire Department number 6 (3-27-07), and Springfield Fire Department number 5 (3-29-07). These forums were advertised with local news media well in advance of the dates, with the hope of drawing a diversified crowd of participants. The content of the forums involved a short introductory presentation on the UDAC, followed by an open floor for public question/comment on the urban deer management in the Springfield area. Both forums were advertised with media releases from the UDAC, and were held at 6:30p.m. Unfortunately, public involvement was low with a total of only seven citizens attending. The following are the public comments received in regards to deer management at the forums.

UDAC Public Forum Comments*:

*May be edited for content, length, and general grammar.

Date	Name	Comments
3-27-07	Unknown	Mr. _____ lives near the SPFD. Nature Center. He has at least five neighbors that make a regular habit out of feeding corn to the deer. His yard is a mess from all the deer (up to 19 at a time) and he has to wrap all his plants with netting if he wants to keep any of them alive! He feels that not allowing feeding is the most important option followed by harvesting the deer (no hi-powered rifles). He is also upset because some of these people that feed the deer attempt to poach them with bow & arrow from the baited site. He has found four arrows in his yard over the past several years (that have missed their mark). He is not opposed to the true form of bow & arrow hunting.
3-27-07	Unknown Written Letter in Response to the Forums.	She and her husband are away from SPFD at the forum time. They live in Lakewood Village. They can not have gardens because the deer eat all the plants (even the “deer proof” ones). They have tried repellants with no avail, and no longer plant decorative species. There are deer droppings all over the yard. It is clear that an urban deer kill is needed. They suggest using certification process to find the best bow hunters in the area and then using them to reduce the deer population.

The Greater Springfield Urban Deer Action Committee Deer (UDAC) Management Recommendations:

Recent deer population estimates in and around the Springfield Metro Area have shown populations in excess of 150 deer per square mile in some areas. At this density the deer become a hazard in many ways. This includes: environmental damage, increase in risk of deer vehicle accidents (DVC's), damage to landscaping of residents, and possible outbreaks of disease (within the deer population).

The UDAC recommends:

- That municipalities in the Greater Springfield Metro Area try to achieve deer densities of approximately 20 deer per square mile of habitat to foster a healthy deer herd and still maintain enough deer for all to see and enjoy. A population at this rate would allow for good wildlife viewing opportunities in the urban area, while not over compromising the safety of drivers on the highway as well as the landscaping owned by residents.
- That municipalities in the Greater Springfield Metro Area should consider developing no feeding ordinances for wildlife to help with the problems of over abundant wildlife.
- That municipalities in the Greater Springfield Metro Area should consider developing ordinances that allow hunting within the corporate city limits of their communities. Hunting should be considered since hunting is currently the most effective and most feasible method of regulating deer populations on a large scale.
- That municipalities in the Greater Springfield Metro Area that have no hunting ordinances or restrict the method of take or type of equipment used, repeal those ordinances and draft new ordinances that allow hunting within the corporate city limits of their communities.
- That municipalities in the Greater Springfield Metro Area should find ways to improve hunter access to private property.
- That City Utilities consider managed hunts on properties under their control such as, but not limited to, Lake Springfield and Fellows Lake.
- That Springfield-Greene County Parks consider managed hunts on properties under their control such as, but not limited to, Rutledge-Wilson Farm, and Lost Valley.
- That the Wilson Creek National Battlefield consider managed hunts on properties under their control.

Population Control Options:

Firearm Hunting

Firearm hunting in Missouri most often refers to the use of a projectile that is propelled by the combustion of a fuel substance. This includes: muzzle-loaders, shot-guns, and center fired rifles/pistols. Also included in the firearms class is the crossbow. Crossbows are considered as a firearms method because an arrow can be locked in “place,” waiting to be fired (even though no “fuel” is used).

Advantages:

- Often the preferred management tool of wildlife biologists, firearms are very effective for harvesting deer.
- Crossbows have an increased range compared to traditional and compound bows and are quiet.

Disadvantages:

- The long range of these weapons is not a good solution to deer in most urban or suburban settings.
- The noise associated with “guns” cannot be tolerated with in city limits.

Recommendations:

The UDAC does not specifically recommend the use of Firearms hunting at this time to control deer over the entire Springfield area. However, any municipality wishing to use a firearm hunt is encouraged to further research this possibility and to present it to their governing body for review.

Likewise, crossbows will not be fully recommended for adoption at this time (which would require approval from the Department of Conservation, Conservation Commission) if the hunt was not held in conjunction with the annual statewide firearms deer season. It should be noted that a special permit to use a crossbow during a bow-hunting only season may still be applied for per the state wildlife code’s hunting exemptions. This special permit is to help allow those with disabilities the opportunity to participate in the hunt. A special permit to use a crossbow would not exempt the holder from the other rules/regulations placed by a particular municipality.

Bow (archery) hunting

The use of compound and/or longbows for the harvesting of deer has become a very popular tool for deer management in many urban or suburban areas. Because it has been widely used throughout many urban areas in Missouri (as well as the whole country), it is not as though this is a “ground-breaking,” technique, and much of the legwork has already been completed.

Advantages:

- The most accepted form of deer control from the attitude survey, this option gained a somewhat/very acceptable rating of 80 percent.
- Hunting from elevated stands and close range shots make this the safest form of deer harvest available.
- Little if any noise associated.
- Can be accomplished without cost to the city and/or landowners. The hunters would be responsible for all necessary state permits as well as the processing of the deer.
- Can be a very effective deer management tool if used correctly, as such, the target would be to primarily hunt female (doe) deer.

Disadvantages:

- The possibility of an injured deer running onto adjacent property may raise some concern.
- Many landowners wishing to have hunts would need to be educated on setting their guidelines as well as picking appropriate hunters (this would not be a tremendous task).

Recommendations:

The UDAC recommends that all involved municipalities/agencies consider the use of bow (archery) hunting within their respected area to help control the deer population. Supplemental information for implementing the use of bow (archery) hunting within a municipality is included under Appendix three.

In addition, it is recommended that all participating hunters pass a bow hunter education course presented by the Missouri Department of Conservation or other approved agency, and as such must provide proof upon request of landowners and/or involved city personnel (i.e. hunt coordinator, police officers, etc...). As previously stated (page 4), those with a limiting disability may apply for a special permit to use a crossbow for this hunt.

Sharp-shooting

Sharp-shooting involves use of trained marksman to harvest deer from baited “shoot” sites. This management tool would require special permits from the Missouri Department of Conservation.

Advantages:

- Deer can be harvested quickly and meat donated to food banks.
- This was the second most accepted method of population control from the survey with a 49% somewhat/very acceptable rating.
- A safe method when implemented correctly as the contracted marksmen will be highly trained.

Disadvantages:

- May be very expensive (\$300+ per deer) with the cost of the deer removal and processing relying on the city/landowners.
- Some citizens may disagree with the method and try to “ruin” bait sites, so police assistance may be required.
- Noise associated with the rifles used (if not silenced).
- May require a long term plan to achieve the management goals.

Recommendations:

The UDAC recommends the municipalities to consider the use of sharp-shooting where bow (archery) hunting may not be applicable. A specific management plan will need to be written for any municipality/agency wishing to use sharp-shooting in advance of the commencement of the harvest. Supplemental information for implementing the use of sharp-shooting within a municipality is included under Appendix three.

Trapping and Euthanasia

Trapping and Euthanasia involves the live trapping of deer (most often individually) and then dispatching them in a humane method such as the captive bolt devices. This would require a special permit from the Missouri Department of Conservation.

Advantages:

- All meat could be donated to food pantries.
- Could be efficient for deer removal in a smaller area.

Disadvantages:

- The cost of the program would be high (\$300+ per deer) and responsibility of the city/landowners.
- Received the lowest “acceptable” rating of control methods from the attitude survey with only 31 percent.
- Requires much more time and effort than other lethal control methods.
- Some concerns are raised about the humanness of this method as considerable stress will be placed on a trapped animal until it is dispatched.

Recommendations:

The UDAC only recommends the use of Trapping and Euthanasia when the other lethal methods of control are not applicable. In addition, a long term management plan should be in place before using this method of control.

Trap and Relocation

Trap and Relocation involves live trapping, sedation, transporting, and releasing of deer into a more rural area. This method is currently not available from the Missouri Department of Conservation following the failure of an experimental trap and relocate program in the city of Town and Country near St. Louis, Missouri.

Advantages:

- Seems like the most humane thing to do.

Disadvantages:

- Not recognized by the Missouri Department of Conservation as an applicable method of deer population control, would require special permission from the Conservation Commission.
- Risk of transporting diseases from one area to another.
- Very expensive method (\$300-\$400 + per deer), and only effective in small areas.
- Up to 70% of these deer may die from the effects of trap myopathy (stress) within a year. This will raise questions of the humaneness of the project.

Recommendations:

The UDAC does not recommend Trap and Relocation as a viable population control method at this time. If it were considered in the future, it should be included in a larger scaled management plan (not the sole tool used).

Special Management Hunts

Special Management Hunts, allow hunters to be selected via a statewide lottery system conducted by the Missouri Department of Conservation. Each of these hunts will have a special set of regulations that vary from normal statewide hunting.

Advantages:

- Can be used for public land areas that may not be opened up to general hunting.
- Safer method of harvest on smaller tracts of land.

Disadvantages:

- Not available to private landowners.

Recommendations:

The UDAC recommends that areas such as: the Wilson's Creek National Battlefield, Springfield-Greene County Parks, Ozark City Parks, City Utilities, and other public land managers consider this method of deer population control on lands that regular hunting may not be applicable.

Fertility Control

In recent years, the latest “hype” in wildlife management has been trying to find a fertility control method. Several different versions of an immunocontraception drug have been developed but to much dismay, none have been fully approved for use by the Food and Drug Administration (FDA). Special permits are required from the Missouri Department of Conservation and the FDA to use such a product. Other Fertility control methods involve processes such as sterilization (which is highly unfeasible for a large scale deer management project).

Advantages:

- Sounds humane.

Disadvantages:

- Still in the experimental stages, this is a very costly alternative to a simpler method of deer control.
- Would require a lot of “worker” hours to complete.
- Deer would have to be re-treated yearly with the shot (this includes trapping and sedation first).
- Long term effect on treated deer is unknown.
- Would take many years for an overall population reduction to be seen.
- All treated deer must be permanently marked as inedible due to hormones used in the vaccine.

Recommendations:

The UDAC does not currently recommend the use of fertility control to help manage the deer population within the Springfield metro area. In lieu of this, the UDAC will keep an “open-mind” in the future as new research and technology becomes available.

Damage Control (alternatives to population control):

Repellants:

Repellants for deer as well as many other species of urban wildlife come in a vast array of products available at home and garden stores. These “concoctions” may also be improvised and made at home from a variety of time-tested recipes. They are most often sprayed on or near landscape features that the landowner wishes to protect from hungry deer. They work by bad smell and/or bad taste to the deer.

Advantages:

- Many available products/recipes.
- Can be effective over a small area.

Disadvantages:

- Does nothing about the overpopulation problem of deer.
- Becomes expensive over time.
- Areas to be protected must be repeatedly treated and the product used may need to be switched periodically to prevent the deer from familiarizing with a particular treatment.

Recommendations:

The UDAC recommends the use of repellants to any landowners experiencing the effects of deer damage to their property, but wishes to remind all involved that this is only a temporary solution. The Missouri Department of Conservation has in the past and will continue in the future, to provide information to the public about the use of these products.

Fencing:

Two forms of fencing may be used for the control of deer damage to a landowner's property. These are electric fencing and exclusion (traditional) fencing. **Electric fencing** is usually comprised of a single wire held by insulated posts approximately 30 inches off of the ground. To prevent problems, all vegetation near the fence must be maintained as to prevent touching which would short out the fence. To add to the effectiveness, pieces of aluminum foil smeared with peanut butter may be placed in even intervals on the fence to encourage deer to "taste" it. Because of their thick hair, the mouth is one of the only highly vulnerable areas of a deer to electric shock. The shock received is not fatal, but over a period of time will make the deer associate the boundary with an "unwelcome-feeling". Children, pets and neighbors are also vulnerable to these fences and **warning signs** should be placed at regular intervals. **Traditional fencing** is quite possibly the best method for excluding deer from your property. These fences can be built in several forms, although the classic 8-foot tall "checkered" fence is most effective. Deer are incredible jumpers, so it is necessary for these fences to be at least 8-feet tall. While electric fences may be cheaper, they are more of a temporary fix. Traditional fencing will often last many years (but is considerably more expensive). A major turn-off with the traditional fencing is the so called, "prison" look it gives to a property.

Advantages:

- Can be very effective for small to medium sized properties.
- Electric fencing is a fairly cheap option.

Disadvantages:

- Traditional fencing may be costly.
- Fencing may not be allowed in some areas via the municipal code or neighborhood association rules.
- The "view" of fencing (esp. the traditional) may be considered unacceptable.

Recommendations:

The UDAC recommends citizens and municipalities which require additional protection from deer beyond population control, consider fencing as an additional option. Electric fencing is suggested for areas such as gardens versus the traditional fencing. The Missouri Department of Conservation will continue to issue technical advice on the use of such fencing to prevent deer damage.

Prohibiting Supplemental Feeding:

The supplemental feeding of deer involves citizens placing food (most often a corn derivative) down for the deer to “enjoy.” While this seems innocent to many people, in time it can create a deer management “nightmare”. Deer congregate at the feeding area and may spread diseases to other deer/wildlife. In addition, deer may over eat the corn and succumb to poisoning referred to as; rumen acidosis (similar to foundering in cattle). The additional number of deer in one area also raises the amount of landscape damage received in a given area significantly. The deer are non-selective and therefore may damage adjoining property to which the food source is located.

Advantages:

- Helps reduce deer damage on properties of which the owners do not wish to attract large numbers.
- Helps reduces risk of deer disease transfer.

Disadvantages:

- May upset some residents who like to feed deer.

Recommendations:

The UDAC recommends any municipality with a history of complaints about deer feeding consider a ban on the practice. It would still be permissible to feed squirrels, songbirds, and other small (seed eating) animals. Suggestions for implementing this can be found in Appendix four.

Traffic Safety Devices:

Traffic safety devices include a wide array of options including warning signs, reflectors, road side fencing (possibly), and lower speed limits.

Advantages:

- May help lower the risk of deer vehicle collisions.

Disadvantages:

- May be very expensive to install.
- Some (i.e. lower speed limits) may not be practical.
- Many motorists will just ignore warning signs as they already do.

Recommendations:

The UDAC prefers to recommend the use of traffic safety devices only, if in conjunction with a population management strategy. These methods alone will do nothing about the growing deer problem. Crossing signs may be made more effective by adding flashing lights during the highest deer activity time (October – December). In a similar manner reduced speed limits may be effective during this time of year. The UDAC does not recommend the use of fencing or reflectors near the road in the attempt to reduce deer vehicle collisions.

All lethal and non-lethal control options listed above should be examined and utilized as appropriate alone or in any combination to achieve the desired deer density of 20 deer/mi² of available habitat.

APPENDIX 1. 2006 South Springfield Spotlight Survey Results.

8/17/2006	Bucks	Does	Fawns	Unclassified	Total Deer Observed	Square Miles	Acres
Missouri Veterans Cemetery	8	11	16	13	48	0.29	182.72
Total	8	11	16	13	48	0.29	182.72

Acres Per Deer 3.81

Deer per Square Mile 168

8/17/2006	Bucks	Does	Fawns	Unclassified	Total Deer Observed	Square Miles	Acres
South Neighborhood	0	1	0	1	2	0.11	69.51
Total	0	1	0	1	2	0.11	69.51

Acres Per Deer 34.75

Deer per Square Mile 18

8/17/2006	Bucks	Does	Fawns	Unclassified	Total Deer Observed	Square Miles	Acres
Greenways Trail	6	7	7	33	53	0.53	342.35
Total	6	7	7	33	53	0.53	342.35

Acres Per Deer 6.46

Deer per Square Mile 99

8/17/2006	Bucks	Does	Fawns	Unclassified	Total Deer Observed	Square Miles	Acres
SCNC	0	2	0	2	4	0.11	70.37
Total	0	2	0	2	4	0.11	70.37

Acres Per Deer 17.59

Deer per Square Mile 36

8/17/2006	Bucks	Does	Fawns	Unclassified	Total Deer Observed	Square Miles	Acres
Living Memorial Park	0	0	0	3	3	0.02	11.11
Total	0	0	0	3	3	0.02	11.11

Acres Per Deer 3.70

Deer per Square Mile 173

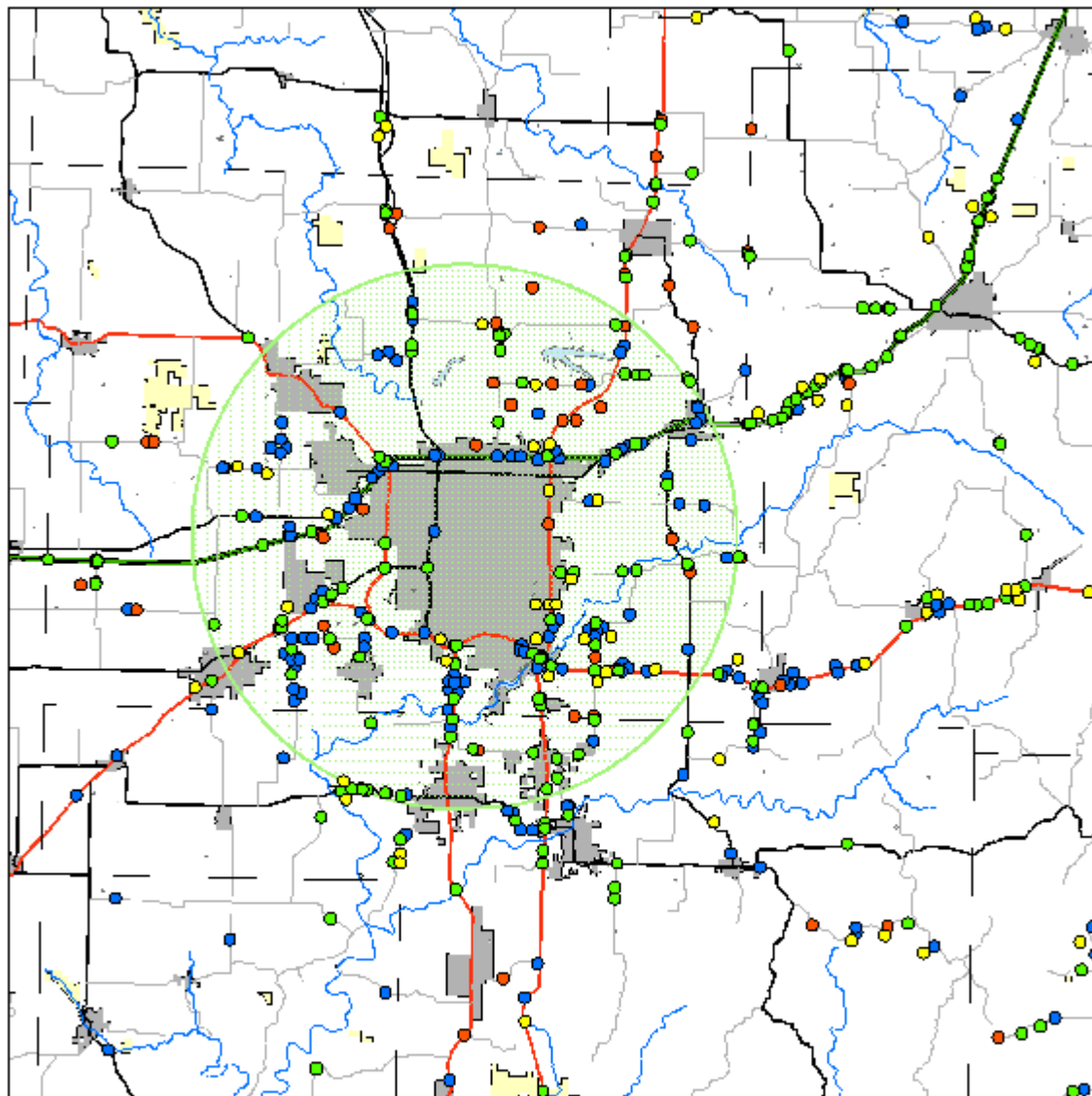
8/17/2006	Bucks	Does	Fawns	Unclassified	Total Deer Observed	Square Miles	Acres
CU Lake Springfield Park	1	19	5	6	31	0.34	217.28
Total	1	19	5	6	31	0.34	217.28

Acres Per Deer 7.01

Deer per Square Mile 91

APPENDIX 2:

Deer-Vehicle Collisions in the Greater Springfield Metro Area 2004-2007 (As of September 19, 2007)



Legend

- | | | |
|--|---|--|
| <ul style="list-style-type: none"> 2007 DVC's 2008deer 2005deer 2004 DVC Metro Service Area | <ul style="list-style-type: none"> <all other values> CNTYNAME Christian; Greene; Taney; Webster allhwy <all other values> | <ul style="list-style-type: none"> RTE_DESG IS MO RT US Cities MDC managed Majlake Majriver watrbody |
|--|---|--|



Appendix 3

UDAC Hunting and Sharp-shooting Process Recommendations

These two population controls are separated into their two respective categories.

Bow (Archery) Hunting:

Per the Missouri State Wildlife Code, unlimited antlerless deer may be taken during the statewide archery season (with the exception of a few counties in the southeast corner of the state). Municipalities using this option will not need to write any long term management plans as this is a part of the State's over all deer management plan. Only deer tags from the Missouri Department of Conservation will be necessary. It is recommended that municipalities attempt this deer control method before requesting a special deer damage permit that would allow use of sharp-shooters. If hunting does not prove productive enough, it may then be incorporated with the special sharp-shooting permits to achieve a higher rate of deer removal.

The UDAC has determined that the city ordinance of Leavenworth, KS, was very comparable to the goals it wishes to achieve and is using a variation of it as the recommendation for Springfield Metro Area municipalities to base their own controlled hunting codes off of. Unfortunately not all of this code will be useable as there are some differences between the two states so revisions to this list are being undertaken to make it more applicable here in Missouri.

An ordinance providing for deer hunting in the City of _____, Missouri.

Sec. _____. Hunting deer--Bow and arrow.

(a) Urban deer management. It shall be unlawful to discharge a broad-head arrow in the city except when participating in a bona-fide deer hunt, under the following circumstances and regulations:

1). a. A Missouri Deer Hunting License (Deer Tag) issued by the Missouri Department of Conservation {MDC} (the "state permit") must be obtained by all hunters participating, and all pertaining state laws pursuant the Wildlife Code must be followed.

b. In addition, a city permit to discharge a broadhead arrow must also be obtained from the _____.

c. Only the owner of the designated property or persons with the owner's written permission shall be eligible to hunt on a given piece of property.

d. No arrow or other object used to hunt deer pursuant to the legal deer hunt may be discharged or projected at such an angle or distance as to land on public or private property not described in the written permission. No discharging of arrows shall be allowed closer than 250 feet to the property boundary of school property which contains a school building. School for purposes of this section means a public school or an accredited non-

public school during periods when students are in attendance or participating in school activities.

e. Any activity performed in conjunction with the issuance of the legal hunt, including but not limited to field dressing or other handling of carcass, must occur on the property the hunt occurs on. Entrails shall not be left on the property where the deer is killed.

f. The transportation of a carcass along any public right-of-way is prohibited, unless it is covered or hidden from public view.

g. Broadhead arrows may only be discharged from an elevated tree stand that is at least ten feet in height and faces the interior of the property. The tree stands and shooting lanes will be located in such a way as to direct arrows to the interior of the property and to prevent any arrow from landing closer than 50 yards to any property line. No broadhead arrow discharge is authorized on parcels under (1-5 acres) without a waiver approved by the City Commission. No broadhead discharge on city property is authorized without a waiver approved by the city commission.

h. Discharge of any arrows will not be allowed if any person that has been granted a state license has consumed cereal malt beverages, alcoholic liquor or any controlled/illicit substances two hours prior to hunting or during hunting activities.

i. No persons under the age of 18 will be allowed to obtain a city permit to discharge a broadhead arrow within the city limits.

j. It shall be the responsibility of a bow hunter to inform the _____ Department by telephone that a wounded deer has left the property and to inform the police department of the deer's probable location. The hunter shall make an attempt to contact the property owner of any adjacent properties prior to entering that property to search for a wounded deer. It shall ultimately be the responsibility of the hunter to find and remove any deer that leave the property (but this does not permit trespassing).

k. ONLY antlerless deer may be taken during this hunt per MDC special regulations.

l. Failing to comply with the ordinance requirements may result in the denial of future city broadhead discharge permits.

m. The _____ department may revoke an individual's permit to discharge a broadhead arrow in the city if he/she violates any part of this section. Upon revocation of the permit, the permittee may appeal the decision to the _____.

n. A violation of this section shall be a class ____ public offense, punishable by_____.

Sharp-shooting:

If the primary use of controlled hunting has not achieved the management goals of a municipality, sharpshooting may need to be pursued. This should be performed in conjunction with deer hunting to achieve maximal effectiveness.

- A municipality's ordinances will most likely need revised to say that use of a firearm for such an activity is acceptable.
- A sharp-shooting permit (required) from the Missouri Department of Conservation must be requested a minimum of two months in advance of the anticipated start date. Missouri Department of Conservation staff may need to visit your sites to determine if they are appropriate or not.
- For safety and effectiveness reasons, it is recommended that the sharpshooters listed on the permit be professionals. However, the municipality may designate non-professionals and hold proficiency tests to screen potential sharpshooters. In either case, all participating must be listed on the special permit.
- Before commencing a sharpshooting regimen, every attempt to notify; city citizens, neighbors of the shoot site, local law enforcement, etc... of the upcoming shoot should be made. This may be done with phone, media, mail, door-to-door contact, etc...

APPENDIX 4:

UDAC Prohibition of Deer Feeding Process Recommendations

As previously stated, supplemental deer feeding may lead to several unwanted problems. This ordinance was also adopted from the city of Leavenworth, KS, and may still need some revision to be applicable in Missouri.

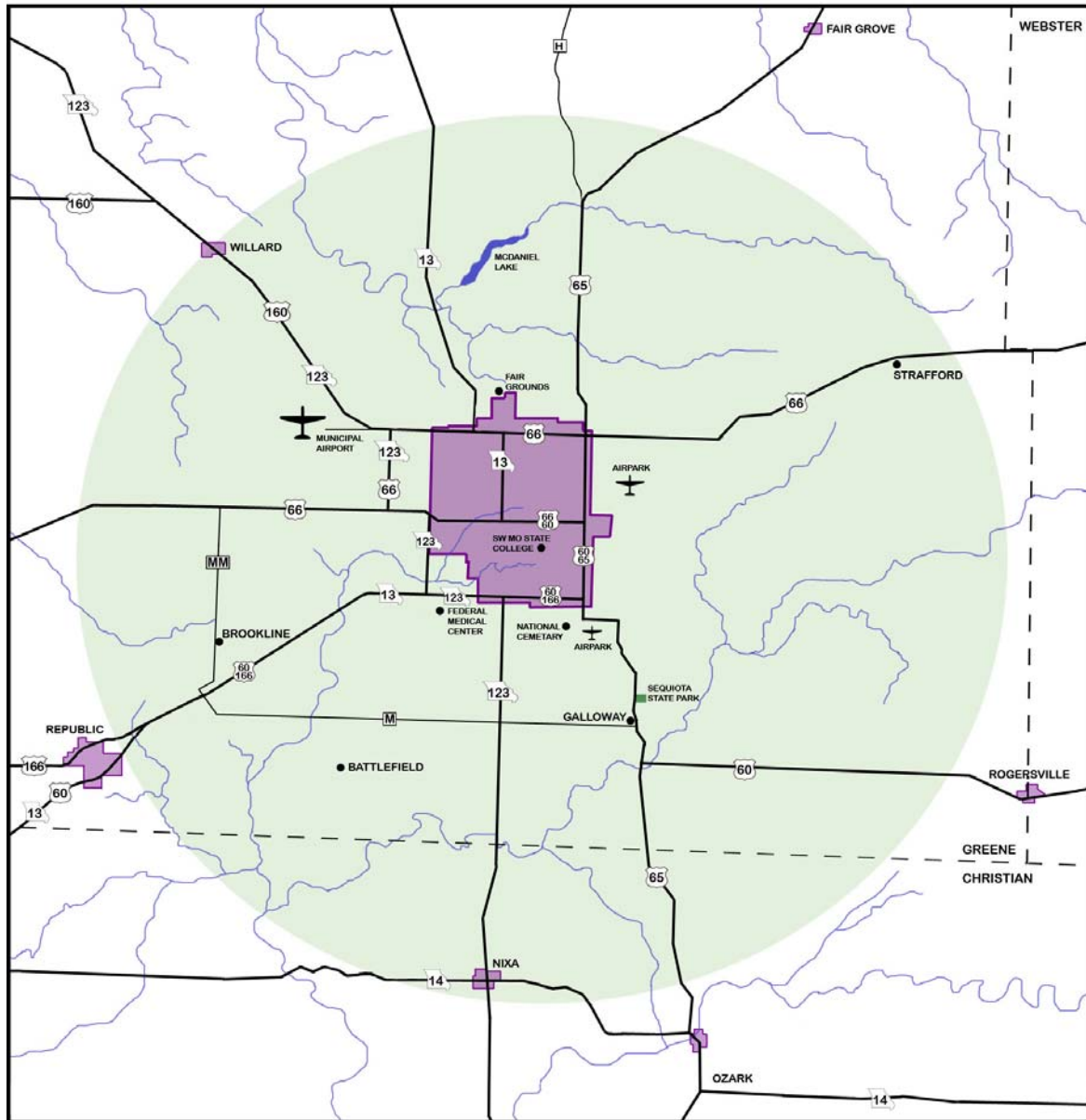
Sec. ____ Feeding wildlife prohibited.

(a) *Feeding wildlife prohibited.* It is unlawful for any person to feed a wild animal unless licensed to do so, with the exception of small seed-eating birds, squirrels, and chipmunks. It is unlawful to place out mineral blocks or salt licks unless they are intended for authorized domestic livestock.

(b) *Violation and penalties.* Any person, firm or corporation violating any of the provisions of this title shall upon conviction thereof be fined a sum not to exceed \$_____, or be imprisoned not to exceed ____ days, or be both so fined and imprisoned.

APPENDIX 5: Springfield Metro Area in 1950

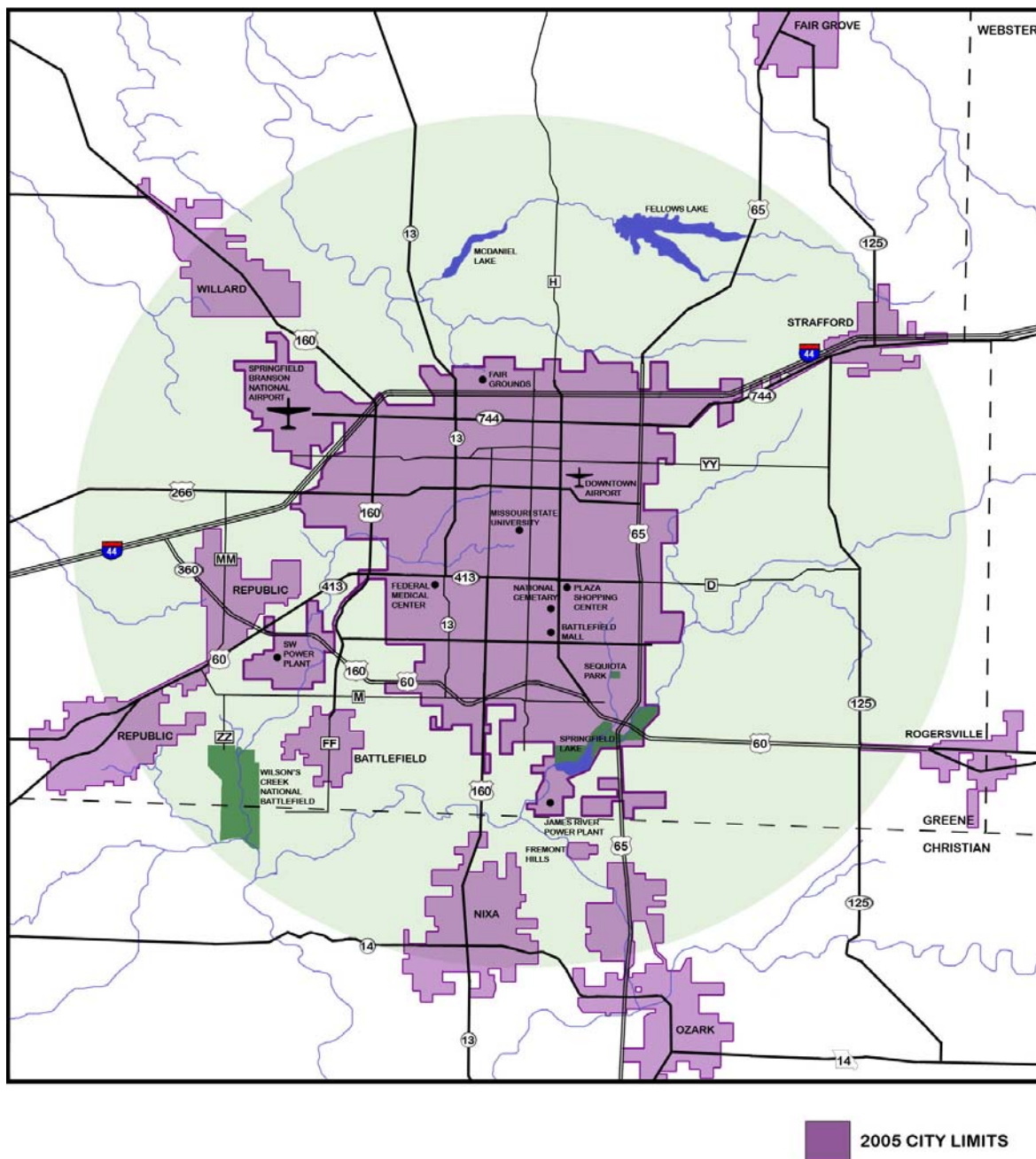
Population: 104,405*



1950 CITY LIMITS

*Greene County

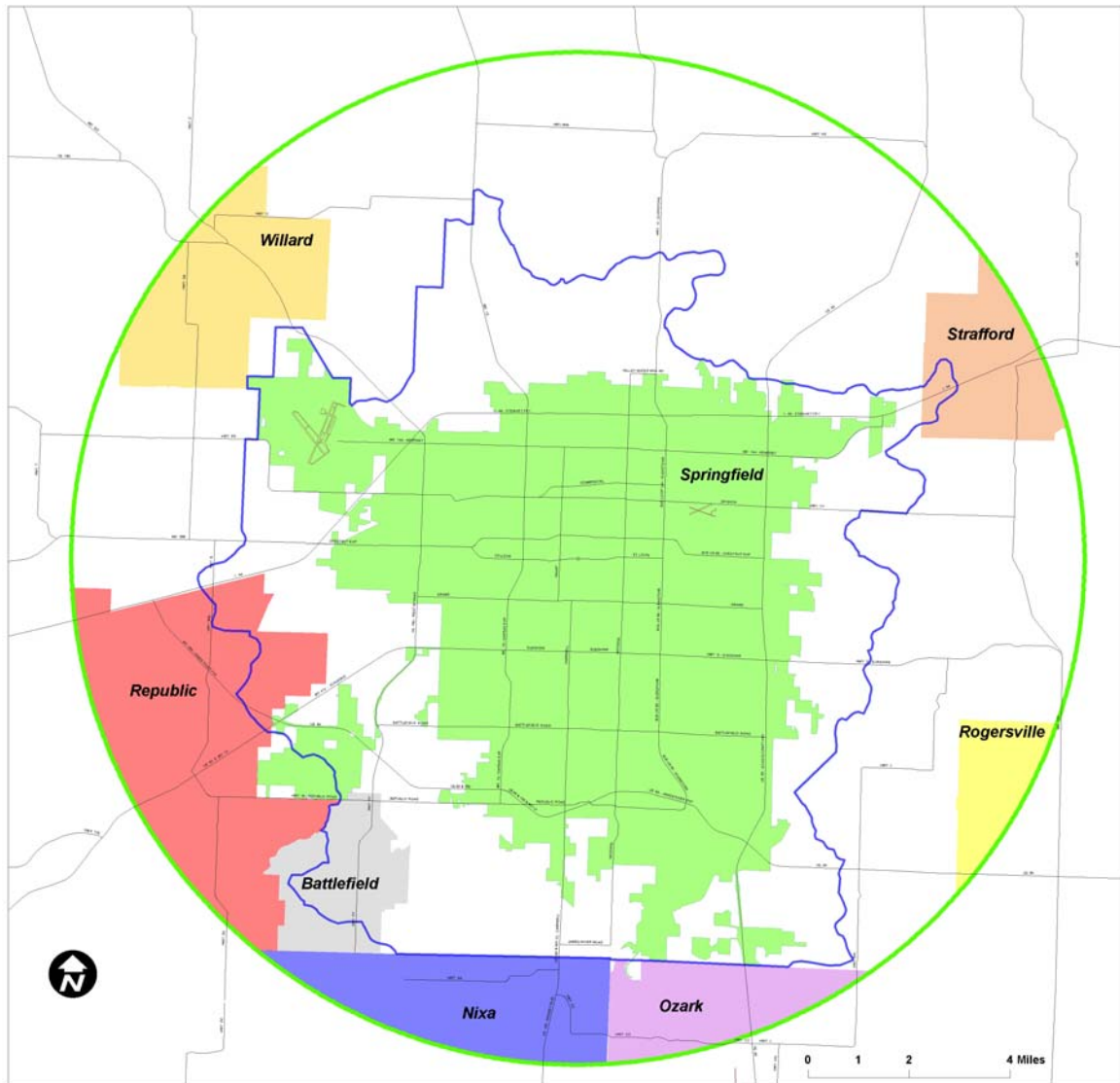
Population: 260,000*



*Springfield Metro Area

APPENDIX 7: Springfield Metro Area Projected Growth

Population: 500,000



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